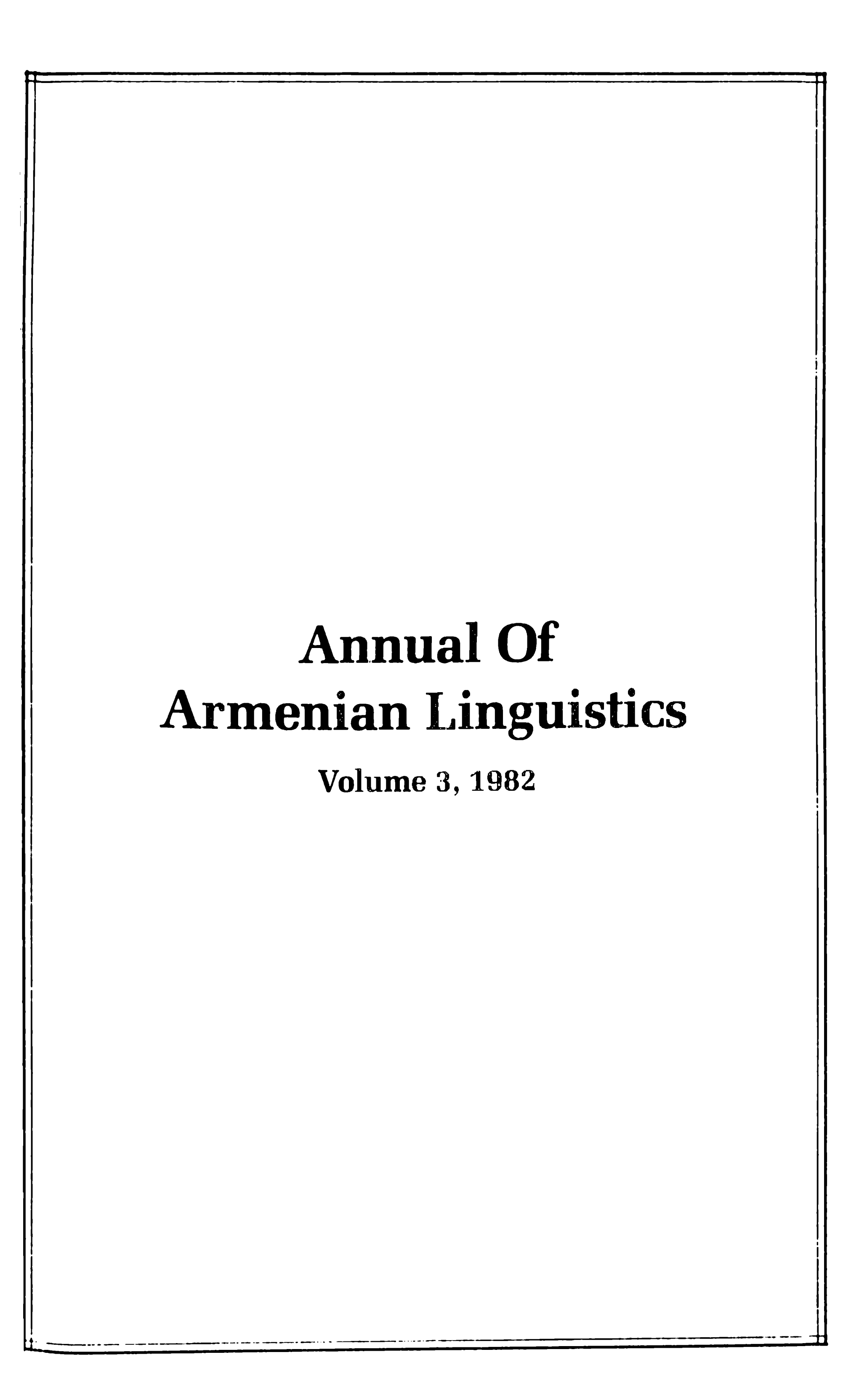
Annual of Armenian Linguistics

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Akkadian Loan Words in Armenian

ACADEMICIAN G. B. DJAHUKIAN
Linguistics Institute, Yerevan

In the history of science, which includes linguistics, there are at least two ways to establish a new theory. The most common is the promotion of some hypothesis on the basis of facts: facts which later may be either supported, developing into a corresponding theory, or rejected, after which they drop into history. There is, however, another form of investigation. One or two scholars, sometimes even generations of them, gather and systematize facts which cannot be explained in conformity with known laws or theories and which do not suggest any explanations of themselves.

Here are two examples from the history of linguistics. Formulating his law on the shift of Germanic consonants, J. Grimm noticed that in many cases IE *p, *t, and *k passed into voiced fricatives instead of voiceless ones; he considered them cases of grammatical shift. In 1873 V. Braun[1] systematized these cases in the system of verb endings. Basing himself on just these facts, K. Werner formulated his law which explained these exceptions by the place of stress.[2]

In 1896 Kretschmer (*Einleitung in die Geschichte der Griechischen Sprachen*) systematized Greek phonological shifts known at that time but which could not be explained through normal rules for phonological development. Kretschmer explained the phonetic deviations by reference to a pre-Greek population of the Peloponnesos. Like many other scholars of his time, he felt that this pre-Greek population was not Indo-European. By the middle of the 1930s however, the Indo-European nature of this substratum had been established. Since then, Vladimir Georgiev, A. van Windekens, V. Merlingen, L. A. Gindin, and others have formulated rules showing the regularity of the phonetic development of this pre-Greek substratum. In particular, certain consonantal shifts, the modification of *o to *a*, satem characteristics, and other aspects of phonology not shared by Greek have been demonstrated in this pre-Greek language. The recent monograph of E. J. Furnée[3] is a

result of this earlier work, for in it Furnée has shown abundantly the alternations of consonants of words not corresponding to the regularities of the Greek language.

E. Furnée did for Greek much of what I did for Armenian in my book, *Očerki po istorii dopis'mennogo perioda armjanskogo jazyka*, published in 1967. In that we systematized almost all Armenian material available at that time which conformed somewhat to Indo-European form, yet the existence of which in Armenian could not be explained by the regular Armenian sound laws. The Armenian vocabulary was collected after studying the standard patterns of Armenian consonantal development, and separating out that material which did not conform exactly to the standard phonological rules. The problems faced were greater than those faced in the study of the pre-Greek substratum. In *Očerki* I assumed that the Armenian language contained the following parts: (1) the most ancient words inherited directly from Indo-European, (2) words created in Armenian as a result of substratum influence from Indo-European languages and languages close to Indo-European (including Hayasan and Urartian), (3) the change of the basic stratum in Armenian as a result of the presence of very ancient dialectal phenomenon, (4) mediate loan words from other Indo-European languages, and (5) words showing regularities which are characteristic of Armenian but not explained. Concomitantly, we assumed the possibility of separate migrations of individual proto-Armenian groups. And when we spoke of the influence, usually as a substratum, of languages close to Indo-European, we meant not only Urartian and Hayasan, but also those languages which were included in the Nostratic community and which had only a remote relationship to Indo-European. These views were stated in my *Vzaimootnošenie indoevropejskix, xurritsko-urartskix; kavkazskix jazykov* (Yerevan 1967), which appeared at about the same time as my *Očerki*. There I gave my reasons for including Hurrito-Urartian within a large ancient community of languages called Nostratic or, to be more accurate, North Eurafrasian, a language group containing Finno-Ugrian, Altaic, Kartvelian, Hamito-Semitic and Chuckchee-Kamchak. However, we must remember that at that time a new version of Nostratic theory was developing which would provide new procedures for the differentiation of the various strata within a language. Only after the publication of Illich-Svitych's attempts at the comparison of the Nostratic languages, volumes 1 and 2 (1971-76) was there a common base for

the differentiation of the varied strata. Thus, in my article "Concerning the Stratification and Chronologicalization of Kartvelian-Armenian Correspondences"[4] did I make an attempt to separate the different strata of correspondences between Armenian and the Kartvelian languages, including those which showed remote relationships.

The material collected in my *Očerki* did not attract appropriate attention immediately. However, in 1976 J. A. C. Greppin discussed Daco-Mysian influence on Armenian[5] and suggested a significant amount of loan words in exactly the same words extracted by me. Later, the French scholar Charles Lamberterie noted deviations from Armenian regularities, in an address given at the First International Conference on Armenian Linguistics, (Philadelphia 1979). At that time, the Soviet scholar L. G. Gertsenberg noted the results of my research and judged it from a new point of view, on the basis of Indo-European accentology[6].

It is not difficult to conclude that among those words extracted by me on the basis of Armenian phonological development, there may well be words of Semitic origin, including Akkadian, if the presence of a remote relationship between Indo-European and Semitic is implied. When these Indo-European-Semitic coincidences are considered, they should confirm the views expressed in my *Očerki*, not contradict them.

It is possible to talk about the direct influence of the Akkadian language only if there are other regularities, and only if we exclude the following:

1. accidental coincidences,
2. influences of other Semitic languages,
3. mediate loan words,
4. historical realities supporting the borrowing.

The title of a recent article by N. A. Mkrtchyan, "Deviations from the Regular Features of Armenian in the Light of the Akkadian Language,"[7] gives us a reason to suppose that this article contains exactly what has been said above. But, alas, as it turned out, Mkrtchyan did not have strict methods for his proofs and did not differentiate between heterogeneous facts; he even confused original Armenian words with loan words, and thus could not make a reliable contribution to the problem.

In his *Armenische Grammatik*, H. Hübschmann did not separate the Akkadian loan words from the Syriac vocabulary. Only, Adjarian did so in his *History of the Armenian Language*,[8] using material from his *Hayeren armatakan bararan*. He presented twenty-seven words which he considered of Assyrian origin. He also listed other lexical items which he considered of Akkadian origin but which entered Armenian from other sources, such as Iranian, Greek or certain unknown sources which caused phonetic permutations not accountable for through normal sound changes.

Later, G. Ghapantsian, in his article "Assyro-Babylonian words in the Armenian Language,"[9] made the next step in studying Akkadian contributions to Armenian. He criticized a number of correspondences which Adjarian had made and posited thirty-seven new words of his own finding. Ghapantsian also listed a few words which, contrary to the then current thinking, he felt were of Akkadian origin, not Syriac, as had been assumed. He also accepted words offered by N. Karst and others which were said to be ultimately of Sumerian origin. N. Adontz also discussed loan words from the ancient Mesopotamian languages, noting certain words; but few of the etymologies are still valid.

It is important to discuss the ways in which Akkadian words penetrated Armenian. The earliest scholars talked about the mediate borrowings of Akkadian words — primarily through Urartian. Adjarian presupposed two periods of borrowing. The first occurred before the Armenian invasion of Urartu when "Assyrian influence on Armenians was indirect and limited."[10] The second occurred after the Armenian intrusion, when the Armenians acquired Assyrian words along with Urartian. G. Ghapantsian talks about the strong influence of Mesopotamia on "neighboring peoples and, through them, on Armenian languages."[11] He objects to Adjarian's conception (Adjarian entitled his work "Akkadian Influence on Armenian Language"), because Akkadians "stopped speaking their own language by the time Armenians became a nation, and they were not neighbours."[12] N. Adontz, discussing one of the lexical substrata, pointed out that "similar elements apparently penetrated into Armenian during their migration to Armenia, or the vocabulary was inherited from the native speakers after the Armenians had already come to this country."[13]

Common views about the possibility of secondary borrowing of Akkadian words cannot be accepted unconditionally. At the

present moment, nobody has any doubts that Armenians lived in the territory of Armenia long before the sixth century B.C., and could have had direct contact with Akkadians, if we remember that: (1) the Armenians lived in the Arme-Subria[14] country, (2) many different peoples known from the time of the rise of the Assyrian state made considerable contributions to the formation of the Armenian nations, (3) Armenians lived in Urartu and even had some rulers on the Urartu throne (cf. Erimena), (4) Akkadians had colonies in Asia Minor, and there was the potential for continuous contact between their residents, particularly merchants, and the Armenians.

There has also been considerable change in our views about the Indo-European language and its ancient contacts and about the ancient territories of the Indo-Europeans as well as their later movements. As early as in 1967 I suggested that when talking about the homeland of the Indo-Europeans the following circumstances should be considered: first, historically, the borders of their territory could not remain unchanging, second, Indo-European tribal communities existed at the time when hunting and cattle breeding had primary meaning for getting food, third, even should someone not believe in the remote relationship between the Indo-Europeans and the Semites (i.e., the Nostratic hypothesis)", clear coincidences in vocabulary permit us to talk about a very ancient contact. Thus, we may suppose that at one time Indo-Europeans lived on the territory which adjoined the territory inhabited by Semitic tribes.''[15]

Put another way one can say that at one time the Indo-Europeans lived somewhere in western Asia. From there shortly before the disintegration of the Indo-European community they could move into Europe either as a whole or in part, as T.V. Gamkrelidze and V. V. Ivanov suppose.[16] As Gamkrelidze and Ivanov think, Armenian tribes continued to live in their former Indo-European territory. Unfortunately, this point of view is not confirmed by the data of toponymy: toponymy of the primary territory of Indo-Europeans does not have an Indo-European shape. In any case, one thing is clear: Armenian tribes could borrow Akkadian words both directly and through other language. However, it must be proved for each single case that the source was Akkadian, not any other language, since forms of their words are the same or almost the same.

The history of the Akkadian language is divided into several periods. The so-called Old-Akkadian period (24th-21st centuries

B.C.) was more or less uniform, but at the end of it dialectal difference between Assyrian and Babylonian was already developing. In the history of each of these dialects there were several periods: (1) Old-Assyrian (2000-1750 B.C.), Middle Assyrian (second half of the second millennium B.C.), Neo-Assyrian (10th-7th centuries B.C.); (2) Old-Babylonian (20th-17th centuries B.C.), Middle-Babylonian (16th-12th centuries B.C.), Young Babylonian (the end of second millenium, as well as the archaized language of first half of the first millenium — with conservation of case endings), Neo-Babylonian (10th-7th centuries B.C. — the loss of vowel endings, strong influence of Aramaic language), and Late-Babylonian (605 B.C. — the beginning of the first centuries A.D.)[17]. It is clear that Akkadian influence on the Urartian language basically was in the Neo-Assyrian-Neo-Babylonian period.

The following phonemes are reconstructed for Akkadian language: (1) vowels: (a) ǎ̄, ě̄, ǐ̄, ǔ̄; also a reduced vowel *ə* which was written with either *e* or *i*; (2) noisy consonants: (a) plosive voiceless consonants; *p*, *t*, *ṭ* (emphatic), *k*, *q* (uvular emphatic), ' (laryngal) h; (b) plosive voiced consonants: *b*, *d*, *g*, ', (c) fricative voiceless consonants: s̱, ṣ (emphatic, close to an affricate), *ś* (midway between s̱ and š). š, ḫ; (d) voiced consonant: z. (3) sonorant consonants: *m*, *n*, *r*, *l*, *w*, *y̌*.[18] Among the consonants, ś̱ and ' existed only in the earliest recorded level of Akkadian. The difference between *b* - *p*, *g*, *k* - *q*, *d*, *ṭ* - *t*, *s*, *ṣ* - z was not clear during every period of evolution and not for every position. In Old Akkadian, voiced and voiceless consonants were scarcely distinguished; further on, they differed completely only in initial position. There was only one sign for *pu* and *bu*, and at first, there was no special sign for *q* (sometimes it was transcribed by *k*); emphatic consonants *ṭ*, ṣ did not always differ from non-emphatic and they often were transcribed as voiced consonants. Akkadian also showed considerable assimilation, both consonantal and vocalic (compare umlaut in German).

We can compare the consonants of Akkadian with corresponding consonants of Armenian using the material from Adjarian. More phonetic correspondences could be made using some etymologies provided by Adjarian and others, but, as noted earlier, a larger proportion of the correspondences suggested by Adjarian, as well as by Karst and Adontz, are simply not tenable for reasons immediately obvious when the etymologies are examined. They fail on both a semantic and phonological basis.

Akkad.	**Arm.**	**Examples**
b		
d		
g	*k*	*gisrinnu* 'scale,' *ksir* 'balance, scale'
p	*p*	*pūḫu* 'exchange' *p'ox* 'loan'
t	*t'*	*tinūru* 'stove,' *t'onir* 'stove'
t	*t?*	
k	*k'*	*kalakku* "silo, cellar," *k'ałak'* 'city'
q	*k*	*kimaḫḫu* "grave," *kmax-k'* "skeleton," *kmaxi-k'* 'corpse'
(qq)	(k?)	*kunnukku* "seal," *knik'* 'seal'
s	*s?*	
s	*c'*	*ṣāṣu* "moth" (?), *c'ec'* moth
s	*s*	(see above)
z	*z?*	
h	*x*	(see above)
m	*m*	(see above)
n	*n*	(see above)
r	*r,r*	(see above)
l	*l,ł*	(see above)
y	*w*	

In order to talk more or less confidently about Akkadian loan-words (and through them about Sumerian) in Armenian language, the following have to be excluded: (1) onomatopoetic and children's words of general character which are present in Semitic and Indo-European languages as well as accidental coincidences, (2) words and even components of words having their origin in the Nostratic community, i.e., words which are the heritage of remote relationship, (3) common Indo-European loan-words from Semitic sources as a result of the most ancient contacts, and words of mediate borrowing, (4) loan-words from other Semitic sources (especially Aramaic-Syriac and Arabic), beside coincidences or significant similiarities with corresponding, Akkadian forms. We cannot yet give an entirely satisfactory decision for this question and the analysis below has only preliminary value. In particular, we do not always have data for the distinction of mediate and direct borrowings because of lack of our information about Armenian history at the time of the rise of the Assyrian state, about Old Persian and, even more, Median, Scythian and other Iranian languages of that time, and Urartian.

Let us try to differentiate certain Armenian-Akkadian coincidences.

1. There are numerous coincidences among onomatopoetic and children's words in the Armenian and Akkadian languages, although Akkadian does not have a complete collection of them. For example, of. Arm. *ałałak* "cry" (dial. *ałałel* "to cry out, to scream") — Akkad. *alālu* "joy, exultation;" Arm. dial. (children's) *bibi, pipik* "child" — Akkad. *bāb/u/* 'id;'[19] Arm. *kku* "cuckoo" — Akkad. *quqū* (qq'); Arm. *cic, tit* "nipple, teat" — Akkad, *dīdā* 'id.'[20]

2. There are a significant number of Armenian-Akkadian coincidences which have Nostratic roots through general Indo-European and general Semitic languages.[21] Here are several examples from V.M. Illich-Svitich's dictionary: Arm. *kokord* "throat, gullet" beside *ker, kur* "food," Indo. Eur. *g^wer-, Akkad. *gaggurītu-* "throat, gullet," Sem.-Ham. **g(w)r* (Nostratic etymology #91); Arm. *glux* "head," Ind.-Eur **ghel-*, Akkad. *gulgullu* "skull, head," from *gll* "to roll," Sem.-Ham. **g (w)l* (#94); Arm. *ełn* "deer," Ind.-Eur. **el-n-*, Akkad. *aja-l* "deer," Sem.-Ham. *'jl* (#135); Arm. *č'mlel* "to squeeze," dial. *c'mřel* "to squeeze, to rub," Ind.-Eur. **ǵem-*, Akkad. *kmj/w* "to tie (a captive), to suppress, to chain," *kam-tu* "suppression,"

Sem.-Ham. *km- (#157); Arm. *kr̃unk* "crane," Ind.-Eur. *ger-, Akkad. *kurukku* "some bird," Sem.-Ham. *k(w)rk (#159); Arm. *orovayn* (*krop-?) "belly," Ind.-Eur. *kerp/ *krep-, Akkad. *qerbu* "interior," Sem.-Ham. *qrb (#214); Arm. *xarel, xorovel* "to fry," Ind.-Eur. *ker-, Akkad. *qrr, qarāru* "fire, heat," Sem.-Ham. *qr(r) (#215); Arm. *sar* "top, summit," Ind.-Eur *k̑er-, Akkad. *qarnu* "horn, turret," Sem.-Ham. *qr- (#227); Arm. *sar̃n* "ice; cold," Ind.-Eur. k̑er-, Akkad. qarḫu- "coldness," Sem.-Ham. *qr- (#230); Arm. *o(v)* "who," z-i-nč' "what." Ind.-Eur. *k^wo, *k^w-i-, Akkad. *kī, kīma* "how," Sem.-Ham *k(w)/ q(w) (#232); Arm. *lmel* "to rub, to soften," *lmlmel* "to chew," Ind.-Eur. *lem-, Akkad. (Late-Babyl.) *lmm* "to chew," Sem.-Ham. *lm- (#254); Arm. *mawr* "swamp," Ind.-Eur. *meu-, Akkad. (Old-Akad., Assyr.) *ma'ū*, (Babl.) *mū* "water," Sem.-Ham. *mw (#298); Arm. *malem* "to crush," Ind.-Eur *mel-, Akkad. *mil'u* "sulfur (*crushed)," Sem.-Ham. *ml- (#302); Arm. *ma(r)šel* "to wear out, to fray," dial. *marel* "to thresh," Ind.-Eur. *mer-, Akkad. *mrq-* "to rub, to grind," Sem.-Ham. *m(w)r (#310); Arm. *anun*, dial. *anum* "name," Ind.-Eur. *nom-, Akkad. *nb', nabû* "to name," *nību* "name," Sem.-Ham. *nb- *nm-? (#317); Arm. *p'ert'* "torn piece," *p'er̃ekel* "to tear, to split, to unpick," Ind.-Eur. *p(h)er-; Akkad. *pr'/(p)rḫ* "to cut off, to tear, to break off," *prr, parāru* "to crush, to break," Sem.-Ham. *(p)r-, Sem. *pr- (#339); Arm. *t'opel* "to beat," Ind.-Eur. *tep-; Akkad. *tbh* Sem.-Ham. *tph (#349).

3. Many scholars paid attention to early borrowings of Semitic words by Indo-European languages and to language contacts between Indo-Europeans and peoples of the Ancient East (G. Levi, G. Ipsen, A. Schott, and others). In his article "The Most Ancient Indo-European — Semitic Languages Contacts" V. M. Illych-Svitych gave 24 Indo-European words from H. Möller's *Indo-European Dictionary*, with regard to borrowings from the Protosemitic language.[22] There are Armenian representatives among them: (a) Arm. *kov* "cow" from IE *g^wow- beside Afrasian parallels (there is no evidence for Semitic); derivation of Indo-European words from Sumerian gud "bull" is considered as doubtful; (b) Arm. *art* from IE. *ágro- beside Sem. *hdr* "fenced plot, yard; inhabited place" and Sumer. *agar, adar* "irrigated territory, field" (also,

Illych-Svitych gives ancient Georgian *agaraki* "field, land, village" not taking into consideration that a source for it is Armenian *agarak* "field, farm"); (c) Arm. *gini* "wine" from IE. **uoino-* beside Sem. **uainū* "grapes, wine" (Akkad. *īnu* "wine"); (d) Arm. *durn* "door" from IE **dhwer-* "yard; door" beside Sem. **twr* "fence; fenced yard;" (e) Arm. *naw* "vessel" from IE. **nāw-* beside Sem. **'nw* "vessel (jar); vessel" (Akkad. *unūtu* "vessel");[23] (f) Arm. *tawn* "festival" from IE **dap-* 'sacrifice' besides Sem. **dbh* 'to sacrifice'; (g) Arm. *astł* 'star' from IE **(A)ster/l-* besides Sem. *'ṯr* 'a deified star;' Akkad. *Ištar* 'Ishtar, divine being which is symbolized by a star'; (h) Arm. *ewt'n* from IE **septm* besides Sem. */s/b'tu*, 'feminine,' from */s/b'u* 'seven', Akkad. *sibittu, sibu*.

And finally we can pass on to Akkadian loan words in Armenian. Here is a list of those Armenian words which possibly have an Akkadian source or, perhaps, another Semitic source (according to regularities established, basically, for an initial position.)[24]

Arm. *anawt'* "vessel" (H), Akk. *unūt* 'id'; Arm. *kamn* "threshing board," Akk. *qamû* "meal, flour" (M); *c'ic'* "stake, pole," Akk. *ṣiṣṣu* "pole, perch" (Dj); Arm. *kaš-aṙ* "bribe," Akk. *qāšu* "to make a gift" (Gh); Arm. *kir* "lime," Akk. *q̄iru* "asphalt" (A); Arm. *kmaxik'* "skeleton," Akk. *kimahhu* "grave" (A); Arm. *knik'* "seal," Akk. *kanīkk-* "sealed object" (A); Arm. *kšiṙ* "scales," Akk. *gišrinnu-* "scales" (A); Arm. *k't'et'* "linen clothes," Akk. *kitītu* "id" (M); Arm. *k'ałak'* "city," Akk. *kalakku* "silo, cellar" (A); Arm. *k'štem "to cut off, beat, hit," Akk. kasāmu* "cut off" (Dj); Arm. *k'urm* "priest," Akkad. *kumru* "priest" (Ad); Arm. *mak's* "customs, duty," Akk. *miksu* "id" (Gh. Ad); Arm. dialect *mankeṙ* "harrow", Akk. *naqīru* "id" (M); Arm. *mašk* "skin, hide," Akk. *mašku* "id" (Gh) or Aram. *maškā* (Dj), Syr. *meškā* is a less possible source; Arm. *mzem* (< *muz-*) "to squeeze," Akk. *mazû* "squeeze out" (A); Arm. *p'ac-anem* "to dress," Akk. *paṣānu* "to cover, veil" (M); Arm. *p'ox* "loan," *p'oxem* "to (ex) change," Akk. *pūḫu* "exchange" (A); Arm. *satar* "worker, helper," Akk. *sadāru* "to rank, put in order;" Arm. *šor* "clothes," Akkd. *šuru* "black cloth" (M); Arm. *tari* "year," Akk. *dārītu* "duration, eternity" (Dj); Arm. *t'onir* "stove," Akk. *tinūru* "id" (A); Arm. *xop'* "plowshare," Akk. *ḫapūtum* "a hoe" (M); Arm. *xor* "deep, depth, pit," Akk. *ḫurru* "hole" (M); Arm. *xoṙ* "breach, hole," Akk. *ḫurru* "hole" (Karst, A).

When the peculiarities of the Akkadian writing system are considered, as well as the possible results of different chronological strata of borrowing and the possibility of different linguistic transmission environments along with primary dialectal differences,[25] it is possible to suppose a reproduction of Akk. *b, d, g* through Arm. *b, d, g;* Akk. *p, t, k* through Arm. *p, t, k;* Akk. *š* through Arm. *s;* Akk. *ḫ* through Arm. *h;* Akk. *ṣ* through Arm. *c;* and to ascertain variations in the reproduction of *r* and *l*. This gives us a chance to suppose a few additional possible loan words from Akkadian or from another Semitic source close to Akkadian: Arm. *agarak* "field," Akk. *agar* (= Sum. *a-gàr*) "a plot of land surrounded by canals" (Gh); Arm. *agur̃* "brick," Akk. *agurru* "id" (Gh) or Per. *agur* (A); Arm. *akur* "mattock," Akk. *akkullu* "id" (Gh); *ałag* "way, road," Akk. *alāku* "to go" (Gh); *anag* "tin," Akk. *anāku* "id" (A) or Hurr. **anagi* "id" (Dj); *astem* "to marry," Akk. *aššatu* "wife" or Hurr. *ašte* "id" (Dj); Arm. *berd* "fortress," Akk. *birtu* "id." (A); Arm. *cptem* "to disguise," Akk. *subātu* "garment" (M); Arm. *gagat'n* top, summit," Assyr. *qaqqādu* "head, top" (A); Arm. *halaw* "clothes," Akk. *ḫalāpu* "to cover with a garment" (A); Arm. *hor* "well," Akk. *hurru* "hole" (see *xor* and *xor̃* above) (M); Arm. *kot'oł* "stele, post, monument," Akk. *kudurru* "landmark, pillar, post" (Ad); Arm. *kupr* "tar," Akk. *kupru* "id" (Ad); Arm. *pata-r̃em* "to tear," Akk. *patāru* "to untie, loosen" (Gh); Arm. *taracem* "to spread, extend," Akk. *tarāṣu* "id" (A).

As to Arm. *ułt* "camel," it is clear that this word has its origin from Urart. *ulṭu* "camel" which in turn probably is derived from Akk. *uṭ/tru*. If this etymology is valid, muffling of voiced sounds and metathesis of *r* could be a result of Urartian influence, if not completely, then at least partially.

Questions on Akkadian influence on Armenian toponymy or about theonymy require special study.

FOOTNOTES

[1]W. Braune, "Über den grammatischen Wechsel in der deutschen Verbalflexion," *Beiträge zur Geschichte der deutschen Sprache und Literatur I.* 1873.

[2]K. Werner, "Eine Ausnahme der germanischen Lautverschiebung," *KZ* 23, 1877.

[3]E. J. Furnée, *Die wichtigsten Konsonantischen Erscheinungen der Vorgriechischen*, Den Haag 1972.

[4]Cf. collection dedicated on the eightieth birthday of A. S. Chikobava (Tbilisi 1979). A German version of this article was presented as a report to the International Congress of Caucasian Studies in Italy, 1979.

[5]J. Greppin, "Dasakan hayereni dakerenic' p'oxar̄yal bar̄eri usumnasir-ut'yan p'orj," *Lraber* 1976.4.

[6]*Issledovanija v oblasti sravitel'noj akcentologii indoevropejskix jazykov;* Leningrad 1979, p. 68.

[7]*PBH* 1979.4.219-234. "Deviations" mean here the vocabulary extracted by us in the *Očerki*.

[8]H. Ačar̄yan, *Hayoc' lezvi patmut'yun I*, 1940.194-201. Yerevan.

[9]G. Lap'anc'yan, "Asura-babelakan barerə hayerenum," *Teghekagir* 1945.3-4.

[10]*Idem* p. 195.

[11]*Idem* p. 6.

[12]*Idem* p. 7.

[13]N. Adontz, *Hayastani patmut'yun*, Yerevan 1972, p. 382-383.

[14]*Hay Žołovrdi patmut'yun I*, Yerevan 1971, p. 237 ff.

[15]*Očerki* p. 39.

[16]T. V. Gamkrelidze, V. V. Ivanov, "Problemi opredelenija pervonačal'noj territorii obitanija i putej migracii nostelej dialektov obščeindoevropejskix jazyka," *Konferencija po sravitel'no-istoričeskoj grammatike indoevropejskix jazykov*, Moscow 1972.22.

[17]L. A. Lipin, *Akkadskij jazyk*, Moscow 1964.8-9; I. M. D'jakonov, *Jazyki drevnej Perednej Azii*, Moscow 1967.263-266.

[18]L. A. Lipin, *idem* 26-29; K. K. Riemschneider, *Lehrbuch des Akkadischen*, Leipzig 1973.18. B. M. Grande, *Vvedenie v sravnitel'noe izučenie semitskix jazykov*, Moscow 1972.312.

[19]Semitic and children's words are collected in a book A. M. Gazov-Ginzburg, *Byl li jazyk izobrazitelen v svoix ictokax?*, Moscow 1965. Some depictive words are included in the Nostratic dictionary of Illych-Svitych.

[20]Adjarian *(HAB)*; derives *cic*, *ccel*, *cuc* "to suck" from a Caucasian source, but he is probably not right.

[21]The Sumerian language is not from the Nostratic community. Sh. Otran's hypothesis about Sumero-Indo-European relationships does not have supporters.

[22]*Problemy indoevropejskogo jazykoznanija*, Moscow 1964.3-12 (cf. Möller's *Vergleichendes indogermanisch-semitisches Wörterbuch*, Göttingen 1911).

[23]Some scholars derive Arm. *anawt'* "vessel" from this source.

[24]Akk. *b*, *d*, *g* — Arm. *p*, *t*, *k*; Akk. *ṭ*, *q* — Arm. *t*, *k*; Akk. *p*, *t*, *k* — Arm. *p'*, *t'*, *k'*; Akk. s, š, ṣ, z — Arm. s, š, c, z; Akk. m, n, r, *l* — Arm. m, n, r, *l/ł*. The letters in brackets indicate the names of the authors who suggested the etymologies: A — Adjarian, Ad — Adontz, Dj-Djahukian, Gh-Ghapantsian, M-Mkrtchian.

[25]Cf. the presence of such pairs as *p'rt'anil/prcanil* "to be saved, to get out;" *p'at'/pat* 'circle.'

Ancient Near Eastern Substrata in Armenian[1]

IGOR M. DIAKONOFF
Institut vostokovedenija, Leningrad

In 1979 Nerses A. Mkrtchyan of the Oriental Institute in Yerevan published an article "Digressions from the Regular Features of Armenian in Light of the Akkadian Language."[2] In it he proposed explanations for imaginary phonetic variations in Armenian by revealing new layers of substratum vocabulary. Such a procedure would be very fruitful if there had been strict methods and a good knowledge of the history of the Armenian language, as well as an equivalent knowledge of the substratum languages and their history. But these skills were lacking, and it is necessary to reanalyze the material presented by Mkrtchyan from the point of view of Akkadian and other ancient Near Eastern languages.

It would be pointless to discuss all one hundred of Mkrtchyan's posited Akkadian-Armenian parallels, for overwhelmingly they are quite wide of the mark. He has provided a pot-pourri of errors. Among the more serious blunders committed are his false equations of Akkadian words with Armenian words when the origin of the Armenian words is really of Iranian, Aramaic, Indo-European, Hurro-Urartian, or Kartvelian provenance. Mkrtchyan's rules for phonetic correspondences are also haphazard; in some instances he glossed the Akkadian words incorrectly and in other instances he referred to Akkadian words that do not even exist. In addition, semantic conditions are grossly violated and words of onomatopoetic origin are treated as part of a loan continuum.

At first it would seem pointless to respond to such an article as Mkrtchyan has published. But because of the seriousness with which his work is being regarded in certain quarters, it is necessary to set the record straight. I will first begin by listing a representative selection of his more common errors and in closing will discuss certain of Mkrtchyan's etymologies that have a distinct value, though in a form other than which he suggested.

Mkrtchyan derives Arm. *xečep* "shell" from Akkad. *ḫaṣb-* "sherd." Adjarian has pointed out that Arm. *xečep* is more likely from Kartvelian. Note Georgian *xečebi*. Similarly, Mkrtchyan sug-

gests a correspondence between Arm. *šmor* "quarrel, confusion, fury" and Akkad. *šumr-*, *šamr-* "fury, frenzy, rage." However, Mkrtchyan was careless, for only Akkad. *šumr-* can apply; *šamr-* is the corresponding adjective. Further, Arm. *šmor-im* means "to rot, decompose (of corpses), to stink." Mkrtchyan seems to be confusing *šmor* with *šlmor* "disturbance, chaos." As Adjarian has pointed out, Arm. *šmor* is of Kartvelian origin; cf. Georg. šmori 'stink.'

Mkrtchyan derives Arm. *xunčan* "waist belt" from Akkad. *ḫuṣann-* 'id'. However, Arm. *xunčan* appears more commonly as *xonǰan* and is from the same root as MP *xvanǰan-itan* "to surround, gird" (Skt. *svanj-*). Similarly, Arm. *mangał* Akkad. *nigall-* 'id' plus prefix *ma-*. But the prefix *ma-* is used only with deverbal nouns in Akkadian. The etymology, with Aramaic *mangał* - "sickle" is considerably more appropriate. The comparison between Arm. *mankeṙ* "harrow," Akkad. *(ma)naqir-* 'id' is impossible. First of all, such a word never existed in Akkadian, nor could it have, on the basis of the Semitic rules of word formation. The traditional comparison with New Aramaic (Assyrian) *manqer* "cutter" is more acceptable.

In the same category we find Arm. *xzuz*, *xcuc* "peel, chaff." Mkrtchyan compares it with Akkad. *ḫazāz-*, *ḫaṣāṣ-*. However, the first Akkadian word does not exist and the second means "to shatter, break in half." Similarly, Arm. *xram* "trench" is made parallel to Akkad. *ḫarām-*; alas, Akkad. *ḫarām-* does not mean "to cut," as stated by Mkrtchyan, but rather has the value "to cover, to hide," which would hardly provide a semantic parallel to Arm. *xram* "trench." Arm. *črčir* "grasshopper" is compared with Akkad. *ṣirṣir-* 'id', but both these reduplicated words would seem to be onomatopoetic, and a loan relationship is not obligatory.

It is not necessary to list any of the etymologies proposed by Mkrtchyan which fail on the semantic or phonetic level. They abound. However, one might close this catalog of horrors by relating two comparisons in which the Armenian words are most properly part of Armenian's Indo-European heritage. Mkrtchyan derives Arm. *acem* "lead out, carry" from Akkadian (w)aṣû- "go out." Obviously the Armenian root is parallel to Lat. *ago*, etc., IE **aǵ-*. Similarly, Arm. *gin* "price" is compared with Sumerian *gin* "a measure of weight (8½ grams)." Arm. gin is of course cognate with Lat. *vénalis* "something for sale," IE **wēn-*.

Mkrtchyan did, however, list some words that are worthy of serious comment. They are twelve in number.

1. Arm. *Aŕ "name of an evil spirit (female)," Akkad. alû* mythological bull," also "male demon." Though the comparison cannot be immediately dismissed, the exact provenance of Akkad. *alû* is unsure and the possibility remains that the word came into Armenian via Hurro-Urartian or Iranian.

2. Arm. *gaǰ, gač* "gypsum," Akkad. *gaṣṣ-* 'id'. These words would surely appear to be related, but *gaǰ* is more likely derived into Armenian through Iranian. Akkad. ṣ regularly gives Old and Middle Iranian *č* and *ǰ*, and Adjarian *(HAB)* is correct when he posits an Iranian origin of this word. It is likely that *gaǰ* was the earlier form, and *gač* was a later development.

3. Arm. *t'onir* "stove, hearth," Akkad. *tinūr-* 'id.' These two words are clearly similar, and the comparison made by Mkrtchyan is not new. The word, however, is a habitat word, and we need not consider it as having an obligatory Akkadian origin. Indeed, we are talking about an invention made in the stone age, and there was little need for the Armenians to borrow it from as late a source as Akkadian. Most likely this word in both languages has its origin from a common substratum.

4. Arm. *xoŕ* "hole, pit, ravine," Akkad. and common semitic *ḫurr-* "hole, dug pit, cave," Mkrtchyan neglected to state that this word was first treated by Adjarian. But a borrowing from Aramaic *ḥurr- is more possible, as also stated by Adjarian. A less archaic Aramaic dialectal form *ḥûr-* is witnessed in written Aramaic sources, but according to the data of modern dialects, the group of phonemes "double r after short vowel" often remained after the cluster "r after long vowel without reduplication" appeared. The word in question must be considered one of the earliest technological borrowings from Aramaic into Classical Armenian. We cannot, however, exclude Hurro-Urartian mediation which would better explain the transformation of u to o although such a transformation is also possible for an Akkadian source, since the possibility of direct Akkadian-Armenian contacts has not yet been proved.

5. Arm. *xuc'* "cell, chamber," Akkad. *ḫuṣṣ-* "hut made of reed." There is no value 'cell' in the Akkadian word. Therefore it is more likely that this word is from Aramaic *ḥūṣ-* "hut,

cell" (from the Syriac dialect, like the majority of the religious vocabulary). This etymology was already suggested by Adjarian.

6. Arm. *caṙ* "tree," Akkad. *ṣarṣar-* "forest." The Akkadian word is very rare, known only from a single lexicographical gloss. It is possibly a loan into Akkadian and cannot be a direct prototype of Arm. *caṙ*, neither from the point of view of semantics, nor from the point of view of phonetics. (Arm. *ṙ* < *-rr-, not < *-r-). The Hurro-Urartian language is a possible source for Akkad. *ṣarṣar-*. Cf. Urartian *ṣarə* "orchard," a comparison of which was long ago made with Armenian. This comparison could be correct assuming that the initial Hurrian **sarrə* would have a form with the necessary double -rr-, and the meaning "forest, tree." It would have given Akkad. *ṣarṣar-* "forest," Urart. *sarə* 'orchard,' and Armenian *caṙ* "tree."

7. Arm. *kac'in*, Akkad. *ḫaṣṣīn-*. Arm. *kac'in*Arm. *kac'in* can correspond only to Akkad. **qassīn-* and cannot come from Akkad. *ḫaṣṣīn-*, which would give Arm. **xac'in*. The comparison with Aramaic-Syriac (< Akkad.) *ḫaṣṣīnā* was made by Hübschmann long ago. This word, though, is a habitat word and exists in the Mediterranean area from the most ancient times in different and remote forms. Cf. Heb. *garzēn*, et al. Perhaps it is permissible to consider a Hurrian mediation since common Hurro-Urartian **q* gave *ḫ* alternating with *k* in south Hurrian dialects; Therefore Akkad. *ḫaṣṣīn-* conceivably could have been borrowed (in the regular form **ḫaṣṣini)* by South Hurrian and could have been perceived as **qaṣṣi-ni-* in North Hurrian and Urartu, whence came the Arm. *kac'in*.

8. Arm. *knik'* "seal." Though Mkrtchyan proposes a parallel with Akkad. *kunukk-*, this etymology has been repeated by linguists since the time of de Lagarde and Hübschmann. I already pointed out[3] that Arm. *knik'* is from Akkad. *kanīk-*, *kanikk-* "sealed (thing)" where the consonant reflection (different transformation of *k-* and *-kk-*) simply shows Hurrian mediation.

9. Arm. *Nanē* "name of a divine being (female)." The goddess *Nanāi(a)* was really known as one of the hypostases of the goddess Ishtar at least from the beginning of the second

millennium BC in Akkadian. However, this word is not Akkadian but from a substratum (not Sumerian). The cult of Nanāia was very popular in the Near East during the first millennium BC, and the goddess was identified with the Iranian (Zoroastrian) goddess Anāhitā. The name Nanāia, Nanē was synonomous with Anahit. There is no reason to think that the Armenians got this name necessarily from the Akkadian.

10. Arm. *salor*, dial. *šlor* "plum," Akkad. *šallūr-* "plum (?) or mushmula (?)." This etymology is appropriate without any doubt, in spite of the Akkad. *-ll-* which should give Arm. *ł*. However, plum trees and mushmula trees do not grow in Mesopotamia, and the Akkadian word is undoubtedly from the languages of the Tauros and Zagros mountains, and most likely from Hurrian where it would have been **šall-ori (a dialect form šennulori is registered)*. If this is so, then the Urartian form should be reconstructed as **šal-orə*, written as **šaluri* whence we could derive the Armenian word. There is no need to derive it, according to tradition, from such an Indo-European word as is found in Russ. *sliva* "plum."

11. Arm. *p'sur* "crumb," *p'šrem* "to crumble," Akkad. *pšr-* "to scatter, spread," the verb exists also in Aramaic; passive *pəšūr-* "scattered, spread." This etymology would be acceptable on a semantic level, and irreproachable phonetically, but unfortunately the word **pəšūr-* was never witnessed. Adjarian supposed the origin from a Caucasian substratum.

12. Arm. *p'oxem* "change," Akk. *puḫḫ-* "exchange." The word also exists in Hurrian[4] from which, evidently, it came into Armenian. Late Akkadian and Hurrian ū could be pronounced as /ō/. This comparison is not new.

We thus have three words *(t'onir, Nanē, salor)* from a substratum common with Akkadian plus one doubtful word *(cař)*; three words *(gaǰ, knik', p'oxem)* borrowed from Akkadian through a mediator plus two doubtful words *(xoř, kac'in)*; one word (xuc') indeed from a Semitic language, but from Aramaic not Akkadian; two words *(Ał, p'sur)* very doubtful; and finally eighty-eight etymologies absolutely erroneous. Half of the twelve etymologies which are partially correct were considered by linguists many years earlier. There is no evidence for even a single direct borrowing into Armenian from Akkadian; there are three to five Akkadian words

borrowed by Armenian through another language and there are three to four Armenian words common with Akkadian but borrowed by both languages from one substratum.

"Deviations" is not N. A. Mkrtchyan's first published work. This means that such works, unfortunately, are considered as serious ones. And in fact, numerous low-level works by other authors have already been published[5]. This is very disturbing. A common trait for all these works is a disregard of the achievements of Indo-European studies and Armenian studies, and most of all, a shocking disregard of the wonderful etymological dictionary of the remarkable Armenian lexicographer Hr. Adjarian.

FOOTNOTES

[1]This article is an abridged translation, approved by the author, of "*K drevnevostočnomu substratu v armjanskom jazyke*," *Patma-banasirakan handes*, 1981.1 (92). 56-78.

[2]"*Otklonenija ot zakonomernostej armjanskogo jazyka v svete dannyx akkadskogo jazyka*," *Patma-banasirakan handes* 1979.4 (91). 219-234.

[3]Igor M. Diakonoff, *Hurrisch und Urartäisch*, Munich, 1971. 86.

[4]*Ibid*.

[5]See, for example, M. A. Katvaljan, *Process obrazonvannija edingo gosudarstva na Armjanskom nagor'e i slijannie aborigennyx plemen v IX - VI vekax do n. ė.* (abstract of dissertation), Yerevan, 1980. V. Xačatryan, "Strana Xajk v sostave Urartu," *Lraber* 1980. 6. 101-112, and several other works, including the amazing book published by S. M. Ayvazyan, *Rasšifrovka armjanskoj klinopisi*, Yerevan, 1963.

Lexical Correspondences Between Armenian and Greek

WILLIAM F. WYATT, JR.
Department of Classics
Brown University

By now the close mutual relation of Greek and Armenian is the received opinion. Though received, however, the opinion is not universally shared, and various scholars have produced other proposals, usually from the vantage point of a sound knowledge of language X and some acquaintance with Armenian. In the most recent article on the subject known to me, Djahukian[1] argues that, though Greek is generally the language closest to Armenian, Indic is close as well in the grammatical sphere. In this paper I propose to examine the question from the point of view of the lexicon, citing, but not arguing, grammatical agreements. In our thinking on the subject we must remember that the question of the relationship of Greek and Armenian is a specific instance of the general problem of linguistic subgrouping within a larger family, a theoretical question of some considerable importance and difficulty.[2]

What does it mean to say that two languages are related? In our case, what does it mean to suppose/believe/hypothesize that Greek and Armenian are related to one another? It would be well to have a clear idea of the answer to this question before we begin. Languages can be related to one another in a number of ways, and a few examples will show in what ways:

1. English refers to a male sibling as "brother," Latin as *frater*, Russian as "*brat'*," and other languages have related (or cognate) terms denoting the same relation. Now all human societies produce male offspring, and in the case of two offspring in the same family (however constituted) there will be a brother if one of the offspring is male. It is, therefore, a human or cultural universal that there are brothers. It is not, however, a cultural universal (a) that there be a term uniquely corresponding to our English word 'brother'; or (b) that when referred to, the brother will be designated with an initial labial aspirate (voiced) followed by /r/ followed by a vowel *a/o*

followed by a dental stop. Because of this non-random configuration of events, we hold that all the words for "brother" listed (as well as others) are related to one another in terms of common descent, descent from an ancestral form which we can designate *bhra:te:r. This asterisked form is assigned to a linguistic system known as (proto)-Indo-European, and the languages sharing the same sound-form correspondence *bhra:te:r are referred to as Indo-European languages. Other languages not having this word — e.g., Greek with its ἀδελφός — are also included in the Indo-European family because of other such correspondences, as (e.g.) in the case of μήτηρ (< *māter-). The relation among these languages can be called genetic, which in turn means that speakers of these languages at some remote time in human history formed part of a single speech community.

2. English has an adjective "fraternal" which seems to have something to do with brothers, but which cannot be derived from the same root as "brother" itself. In language change one holds that sounds change always in the same way, and without some special conditioning it is difficult to know how one language could develop an *f-* from an original *bh-* in one form of a word but *b-* in another. Fraternal cannot be descended IN ENGLISH directly from Indo-European, and must be a borrowed term. We know that "fraternal" is derived from one of the Romance Languages, either French or Late Latin, and that the relation here is not genetic but rather adoptive. In this case we do not speak of English and French being Romance languages, but rather hold that there was prolonged contact between speakers of the one language with speakers of the other such that English speakers borrowed a French word. In this case we must think of adjacent speech communities which share vocabulary though relatively little else. One notes in passing here that borrowing between French and English was always in the direction from French into English, at least until fairly recently.

3. The Modern Greek word for "bulldozer" is *bulldozer*. Again we are in the presence of borrowing, but we need not — in the case of a culture word of great desirability and utility — think of prolonged contact between the speakers of the lan-

guages in question, any more than we should imagine modern physicians to be in contact with ancient Greeks because of their use of terms such as myoscopy, peptide, and biosynthesis.

Both Greek and Armenian are Indo-European languages, as is proved by the fact that they share a certain number of words both with each other and with other Indo-European languages. The question is: are they more closely related to one another than they are (a) to any other Indo-European language or (b) than either is to any other Indo-European language? And if they are, in which of the above ways? And perhaps more important: how do we go about finding out?

Since the question of linguistic relation is based on certain notions of genetic and familiar relations, it might be well to illustrate the nature of the problem with a human family composed of parents, four biological children and an adoptive child. There are two boys ages 20 and 16, two girls ages 18 and 14 and an adoptive boy child age 22. Clearly the genetic children will share the parents' gene pool whereas the adoptive child will not, but in general, people when speaking of resemblance speak in rather more impressionisitic terms of height, weight, body shape, eye color, hair color, attitude toward the world, use of cigarettes or other moral lapses, interest in collecting things, sloth, etc. I do not intend to follow through here on all the possibilities of similarity within the family, but would merely observe that characteristics are going to be shared by all the children in terms (a) of the characteristics selected for notice, and (b) the several genetic and sociological heritages of the children. One example: In my own family one child was born in Greece, two in Seattle; the best Greek is spoken by my daughter born in Seattle.

The long and the short of the above is that two languages may be related to one another in different ways and in different linguistic subsystems. They may share phonetic similarities without any lexical equations; or they may share a large section of their respective vocabularies without any systematic phonetic relations. And this in turn means that the vocabularies of Greek and Armenian can be related (or not) even if the phonological systems are not related (or are).

Are Greek vocabulary and Armenian vocabulary related to each other? In a sense of course they are, both because humans

spoke both languages and because the two languages are descended from proto-Indo-European. But to ask whether they are more closely related to each other allows of several possible interpretations. We must remember that vocabulary reflects culture and that linguistic relation in the lexicon entails cultural relation at least to the extent that certain areas of meaning are shared. I conceive of several possible original configurations within Indo-European which might reflect an assumed relation of Greek and Armenian:

1. Are Greek and Armenian more closely related to each other than they are to any other Indo-European languages? If the answer is yes, then we may infer either (I) that they are originally one language which differentiated itself out from common Indo-European, or (II) that the two languages or dialects were in close proximity to each other and (more or less) cut off from other languages either (a) within the Indo-European speech community or (b) after that community fragmented. Diagram Ia shows a possible original arrangement within Indo-European on the assumption that Greek and Armenian were originally one language (labeled J) the lozenge encloses Indo-European languages:[3]

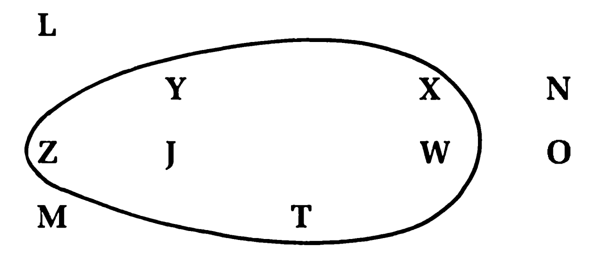


Diagram Ia

In this diagram J is in principle exposed to linguistic trends from all directions. Diagram Ib removes the lozenge and places J at some remove from its original neighbors:

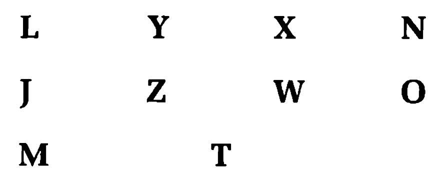


Diagram Ib

At a later date J differentiated into Greek and Armenian. On this reading of things J will be most strongly exposed to Indo-European influences emanating from Y and Z *and* to influences from (hypothetical) non-Indo-European A and B. For completeness I provide also a diagram Ic in which G(reek) and A(rmenian), now separate, are exposed severally to other linguistic influences:

C F

B G D H A I

E J

Diagram Ic

Diagrams IIa, IIb and IIc need not be drawn separately because they merely replace J with G(reek) and A(rmenian) and imply that the ancestors of Greek and Armenian spoke distinct dialects already within Indo-European. IIc is identical with Ic.

2. Greek is more closely related to Armenian than to any other Indo-European language (though Armenian may be

more closely related to X). In this event we might expect that Greek was rather more peripheral within Indo-European and Armenian more central, e.g.:

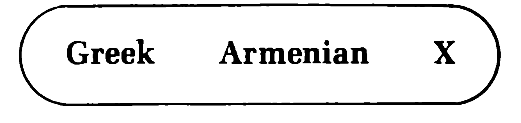


Diagram IIa

3. Armenian may be more closely related to Greek than to any other Indo-European language (though Greek may be more closely related to X):

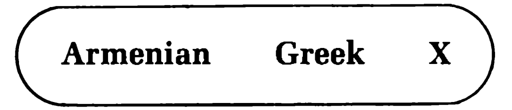


Diagram IIb

4. Greek and Armenian are more closely related to X than (a) either is to the other or (b) than either is to any other Indo-European language:

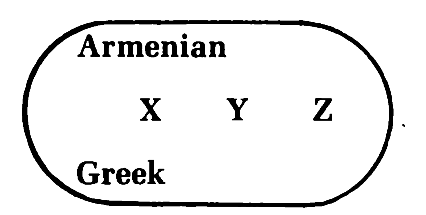


Diagram IIc

We will in our conclusion endeavor to select from among these various possibilities if it turns out that there is sufficient evidence for the hypothesis of especially close relation.

One warning before we begin: we must not use our conclusions as premises. The question is whether Greek and Armenian

language and culture are in some way related: we cannot adopt their relationship as a premise as is done by Frisk[4] in several places. I cite two which could be of considerable importance. In connection with Greek ψεύδομαι 'lügen' Frisk states (II.1133): Zum tiefstufigen *psud-ros* stimmt arm. *sut*, o-Stamm, 'Lüge, lügenhaft' . . . was in Anbetracht der vielen lexikalischen Übereinstimmungen zwischen diesen beiden Sprachen kaum Zufall ist. Perhaps not, but the mere assertion of relationship tells us nothing more about the history of the words in question; and the statement that one is not surprised at the relation is meaningless. If anything research is hindered rather than helped by such remarks. Are the Greeks and Armenians liars from eld? Do they — or did they — lie in a way peculiar to themselves? Did no other Indo-European people lie? And so on.

The second case may be even more serious. Under the Greek word ϑεός "god, goddess" Frisk states (I.662): "Nicht sicher erklärt. Wegen der vielen lexikalischen Berührungen zwischen Griechisch und Armenisch kommt die Verbindung mit arm. *di-k'*(pl), 'Götter' zunächst in Betracht." In this case the presumed relation between the two languages imposes a world view. Rather than accept this connection on the basis of other relations within the lexicon, one should instead investigate Greek and Armenian views of divinity and the supernatural to see about possible systematic areas of agreement. If such agreements are lacking, we must content ourselves with merely citing the possibilities. In what follows we shall rate more highly those cases of agreement which fall within semantic spheres identifiable in the real world.

Greek and Armenian have preserved a fairly large chunk of Indo-European vocabulary, and in some cases the words tend to fall into classes (classes as seen, at least, by us). The preservation of a term in more or less its original meaning of course implies that the cultural unit designated by the term has remained current throughout. Agreement in inherited vocabulary therefore means that neither language has had occasion to innovate in that area of the vocabulary. And in turn this means that both are conservative, and are not necessarily to be more closely related to one another because of their conservatism. For reference I list here those words which seem securely attested in Greek and Armenian. Parts of the body arranged from head to toe with certain modern equivalences of function and organ: eyes — know, see, tear; tooth — eat, lick;

chin, shoulder; heart, blood; liver, spleen; buttocks, defecate; testicle, urinate, knee, foot.

The system of numerals by and large has been preserved intact, with the numbers from 2-10 being inherited, with perhaps some changes in form. Thus Armenian ut' "eight" derives from *opto: rather than *okto: and has been reformed from *okto: by *influence of preceding* *septm. As it happens Elean, a Greek dialect, also experienced this development: Armenian and Elean are not for that reason to be brought into closer connection. The number for "nine" is inherited, and hence is no evidence for connection: its form, however, ἐννέα in Greek inn in Armenian, both forms with a prothetic vowel — that is an extra, nonoriginal vowel in initial position as compared with the other Indo-European forms with initial *n- — has been held to constitute a significant proof on the phonological level of the relationship of the two languages.

The Indo-European family seems to have been strongly patrilocal and to have embraced much more than our so-called nuclear family. Greek and Armenian at least in some ways seem not to have changed this system much, and they share words that to us might seem rather strange or exotic: husband's sister (γάλως), husband's brother (δαήρ), brother's wives (εἰνάτερες ?), father-in-law (ἑκυρός), daughter-in-law (νυός); as well as more or less expected relations such as father and mother, son and daughter.

Animals include: deer (ἔλαφος), bear (ἄρκτος), dog (κύων), fly (μυῖα), louse (ψύλλα) and others. 'Honey' (μέλι) implies bees.

Other artifacts and observations: house (δόμος), door (θύρα), field (ἀγρός), star (ἀστήρ — again, both languages have a prothetic vowel), ship (ναῦς), salt (ἅλς), branch (ὄζος), fire (πῦρ), plough (ἄροτρον), passage (πόντος). Verbs include "lead," "carry," "know."

All that the above lists do is to prove that Greek and Armenian are IE languages and that they are conservative in certain cultural areas. To them we may add "evening" (ἕσπερος) and "spring" (ἔαρ) as well as the prepositions "in" (ἐν), "out" (ἐξ) and "over" (ὑπέρ).

There is a corpus of some twenty-six words characterized by a Greek-Armenian cognate reflected as well in only one other or a few other Indo-European languages. Indo-Iranian is most frequently represented and Latin next — perhaps because these languages are most widely and most anciently attested — but the

words do not seem to cluster semantically. The Greek-Armenian-Sanskrit cognates show a number of grammatical features:

1. Aorist of -mi verbs with a long vowel:

ἔδωκα	et	adāt	*e-dō-
ἔθηκα	ed	adhāt	*e-dhē-

2. thematic conjugations[5]:

aorist of **wid-*	εἶδε	egit	avidat	*e-wid-e-t
present of **aǵ-*	ἄγει	acē	ajati	*ag-e-t-i

3. syllabic augment as in the above: *e-wid-e-t

4. perhaps closer to our theme is the addition to the prepositional repertory of Indo-European of **epi* "on", particularly if **epi* derives from **api* by a sort of vowel harmony. The preposition has developed further in Indo-Iranian and (hence?) in Armenian to "also, and."

Perhaps more interesting, but unfortunately not probative of anything, are the words:

old	γέρων	cer	jarant-
heat	θέρος	ǰer	haras-
serpent	ὄφις	iž	ahi-
hurry	σεύομαι	č'ogay	cyavale
-bearing	-φορος	-vor	-bhara
raw	ὠμός	hum	āma-

No coherent picture emerges from this. Little more can be said when Latin cognates are added. Here we find the notions "silver" (ἄργυρος), "sinew" (νεῦρον), "touch, fashion" (θιγγάνω), "barren" (στεῖρα). Greek, Armenian, Indo-Iranian and Germanic share the words for "work" (Greek ἔργον, Armenian gorc, Avestan *varəzəm*, Eng. *work* and "darkness" (Greek ἔρεβος "underworld," Armenian *erek* "evening," Sanskrit *rajas-* "lower air," Gothic *riqiz* "dark"). The picture becomes only slightly clearer when Sanskrit is omitted, and one perhaps discerns a more European orientation of Greek and Armenian cognates. In addition to "sweat" (ἵδρως) and "gift" (δῶρον), we find names for animals such as

fish	ἰχθῦς	jukn	Lith.	žuvìs
lynx	λύγξ	lusanunk'	Lith.	lúšis

The lack of any certain conclusions to be drawn from the above confrontations underlines for us once again the difficulties one faces when trying to establish sub-groups within a larger (reconstructed) linguistic system. It is relatively easy to prove that a language belongs to such a reconstructed system, but it is much more difficult to prove that any two languages within the system are related to one another save in terms of the reconstructed system itself. There do seem to be structural connections with Indic, but little in the vocabulary points unequivocally in any special direction. Because of the difficulties in this realm, and because subgrouping is difficult in any event, we must be all the more rigorous in our admission of cognates for consideration. I do not in what follows describe my method of accepting or rejecting cognates. Suffice it to say that it is not easy to decide in any given case, and that agreement will always be difficult of attainment. If agreement were easy, the question would long since have been settled.

Passing now to a consideration of features shared only by Greek and Armenian which may not be due to chance we find:

1. the development of a prothetic vowel in the widespread roots "man" and "name" and also in the words "reproach" and "belch."

man	*nēr	ἀνήρ	ayr
name	*nomn	ὄνομα	anun
reproach	*neid-	ὄνειδος	anicanem
belch	*reug-	ἐρεύγομαι	orcam

2. the widespread use of the suffix *-ano:* in present stems of verbs.

leave	*l(e)ik^{w}-	λιμπάνω	lk'-an-em

3. the -n- extension in the verb "to wash" (Greek πλύνω, Armenian luanam) and in "ear" (Greek **ous-n-tos*, Armenian un-kn) and in the word for "hedgehog" (Greek ἔχινος, Armenian *ozni*) as opposed to the *-l-* extension seen in Germanic.
4. the -ai- extension in the oblique cases of "woman" (Greek γυναικός, Armenian *kanay-k'* nominative plural).

All of these are important, and all point to some form of relation: Greek and Armenian *insofar as they share common rules either phonetic or of word formation* must at one time have been subject to the same stimuli of linguistic development. Prothesis could be a substrate phenomenon, while the other cases argue rather for a single original linguistic system.

We may now pass to the main topic of this presentation, agreements in vocabulary restricted to Greek and Armenian. Unlike some others we will not be much impressed by isolated agreements on the grounds that they may be due to chance either in methodology or in historical development. That is, we may be tempted to accept some cognates because we want to believe that Greek and Armenian are related in the first instance (see above); and history may have played a game on us by allowing a certain originally widespread word to be attested only in Greek and Armenian. In order to cut down on the likelihood of these atmospheric disturbances we shall group words into semantic spheres and weight more highly those words which find support elsewhere in the same general area of meaning.

There are four more or less temporal adverbs shared by the two languages:

	Greek		Armenian
ἄρτι	just now	ard	soeben, jetzt
δήν	long (of time)	erkar	lange dauernd, lang
μέχρι	until	merj	nahe, bei
ὄφρα	so long as, until	erb	wann?

I cannot bring myself to set much store in this list since the phonetic agreement seems slight in several words, and the semantics are little better. Particularly in the case of *ὄφρα*:*erb* is this the case: neither sound nor sense seems compelling.

Words denoting number and quantity or amount:

*πλῆος	full	li	voll
πλήρης	full of	lir	Fülle
κενός	empty	sin	leer
ἅδην	enough	at-okʻ	voll, ausgewachsen
ὀλίγος	little, few	ałkatʻ	arm, dürftig
μάνυ· μικρόν (Hes.)		manr	klein, dünn, fein

The last two do not impress, *oligos* because of the semantic distance and *manu* because the Greek cognate is attested late and with the gloss "bitter" rather than "small." Elsewhere the stem *man-* means "loose" or "porous," not "small." The opposition "full -

empty" seems impressive. Though other Indo-European languages have the root *ple:-, the agreement in form of Greek and Armenian together with the development of an antonym "empty" would support (though not prove) closer relation of the two languages. To this array must be added the number "one." Armenian *mi* is identical with the Greek feminine of the numeral *μία*. "Nine" in both languages shows prothesis (Greek *ἐννέα*, Armenian *inn*) though the word itself is widespread. And "six" (Greek *ἕξ*, Armenian *vec*) may both stem from an s-less variant of the Indo-European word which must be variously reconstructed as **seks, *sweks, *weks, *ksweks).*

Among nouns we find the largest number of cognates, and this is encouraging, the more so when the noun is concrete rather than abstract. Verbs and abstracts are likely to be less helpful because semantic shifts are very likely to obscure original relations; and because different languages are likely to draw on the same stock of linguistic elements to derive newer concepts. These facts belong rather to the realm of general linguistic (and psychological) history and theory than to the history of any specific system or systems. Artifacts and the terms denoting them are relatively less subject to change: they are more likely to disappear as culture changes. In this area we can be assured that we are comparing artifacts and cultural matters rather than notional developments reflected in the respective systems.

1. Seasonal and celestial phenomena:

ἦμαρ	day	awr	Tag
θερμός	warm	ǰerm	warm
χιών	snow	jiwn	Schnee

The word for "day" is striking since Greek and Armenian seem to have had a distinctive notion of what a "day" was, a notion (whatever it was) different from that of most other speakers of Indo-European. "Warm," though as such restricted to the two languages, contains a root of fairly wide

extent. Greek ϑέρος "summer" is an innovation of that language, though one will recall that the root in that form is restricted to Greek, Armenian and Sanskrit. The entire seasonal nexus receives support only from the fact that Greek and Armenian use the same word — from a widespread root — for "snow": their words for "winter" derive from the widespread root *ǵheim-. The (slight) evidence indicates that Greeks and Armenians divided the twenty-four hour period and the seasons in much the same way and on the basis of the same vocables.[6]

2. Parts of the body:

αὐχήν	neck, throat	awjik' (pl.)	Hals
ὄκκον· ὀφθαλμόν	(H.)	akn	eye
πρωκτός	anus	erastank' (pl.)	Steiss

Here the evidence is nearly worthless. All seem agreed that "anus" is related to "buttocks," but the words remain isolated. "Eye" is too insecurely attested in Greek, and Greek 'neck, throat" has a number of by-forms (*ἄμφην, αὔφην*) which render it unsuitable for etymologizing. "Anus, buttocks" can therefore as well be due to chance as to inheritance.[7]

3. Human relations:

βροτός	mortal	mard	Mensch
γραῦς	old woman	ceroyt'	Alter
μητρυιή	stepmother	mawru	Stiefmutter
πρέσβυς	old man	erēc'	Ältester, Priester

Βροτός is an exact formal and semantic cognate of *mard:* both languages have separated off the particle of the root 'to

die' and specialized it in the meaning 'human' (as opposed to god). This is striking, and argues for a shared world view in which gods and men are similar or identical save in the criterial attribute of mortality.[8] It is at this point that comparison of Greek ϑεός: Armenian *dik'*— if allowable on other grounds — might be brought into the discussion. If 'old woman' originally meant "old age," then relation with *ceroyt'* is impressive: but it is weakened by a cognate in Avestan, *zaurvan-* "Greisenalter," which suggests that the Armenian word has eastern connections. In order to be really impressive the Armenian word would have to mean "old woman," and we might then hold that the two languages shared similar views of old age and chose to represent this fact with a -u-extension. "Stepmother" seems an odd notion in an extended family, and the word may therefore represent in both Greek and Armenian (and in Germanic? — OE *modrige* 'mother's sister) a shift in the nature of the family. This group is indicative of relation but does not prove it.

4. Artifacts:

ἄντρον	cave	ayr	Höhle
γέφυρα	dike, bridge	kamurǰ	Brücke
κίων	pillar	siwn	Säule
μακέλη	mattock	markel	Hacke
τάρσος	flat basket	t'aṙ	Stange zum Trocknen von Trauben, usw.
φρέαρ	well	ałbiwr	Quelle

"Mattock" may be a late borrowing from a common source and cannot be considered here. All the others are very possibly cognate words. "Bridge" is phonetically difficult on both sides, and the word is likely borrowed, probably independently and from a third source.[9] "Pillar" is remarkable,

both because it is restricted to Greek and Armenian and because there is no obvious root from which it can be derived. "Frame of wicker-work (for drying cheeses on)," though probably connected with a fairly widespread root meaning to dry, and possibly connected also with OHG *darra* 'Darre, Gestell od. Vorrichtung zum Trocknen von Obst usw'. is most impressive. In most of these cases chance seems excluded, but little coherence can be discerned.

5. Flora:

βάλανος	acorn	kaɫin	Eichel
ἐλαία	olive-tree	ewɫ	Öl
κάστανα	sweet chestnut	kask	Kastanie
ῥόδον	rose	vard	Rose
σπόγγος	sponge	sunk	Pilz
σύριγξ	shepherd's pipe	sring	Flöte

Again nothing certain on linguistic relations. "Acorn" is from a widespread root, and all the others seem to be loanwords with a more or less Mediterranean or Asia Minor provenance. At best we may conclude that Greeks and Armenians knew nothing of these plants until they either together or separately encountered them somewhere near the Mediterranean.

6. Fauna:

ἀλώπηξ	fox	aɫuēs	Fuchs
ἰκτῖνος	kite	c'in	Weihe
λάρος	gull	lor	gull

μᾶλον	sheep or goat	mal	Schaff
ἔντερα	entrails	ənderkʻ	Eingeweide

"Fox" is a sure cognate, and no other languages have precisely the same form. "Kite," though Greek has a prothetic vowel, may be related, and "gull" has recently been supported by John Greppin.[10] The agreements are striking but (to me) not probative because not systematic. "Sheep or goat," or perhaps "small animal" as opposed to large (cf. *λιανά* vs. *χονδρά* in modern Greek) is far too problematic, both because the vowel in Greek is more likely to have been /e:/ originally and the Armenian word is more plausibly interpreted otherwise (see below). "Entrails" is impressive because of the specialization of meaning, a specialization which occurred also (independently?) in ON *iđrar*. To this array of animal names we may be justified in adding:

δέλεαρ	bait	kłanem	verschlingen
πόρκος	fish-trap, weel	ors	Jagd, Jagdbeute

which denote human artefacts related to animals. I do not regard either as particularly likely.

6.a. Sheep (IE **owis*)

ἀρήν	lamb	gaṙn	Lamm
μαλλός	flock of wool	mal	ram
πόκος (<*πέκω*	fleece	asr	Schafwolle
κριός	ram	siseṙn	Kichererbse

Both Greek and Armenian have preserved the IE word for 'sheep', Armenian only in the compound *hoviv* "shepherd." The two languages seem to have innovated in developing a

common word for lamb. Greppin has recently pointed out the significance of the relation of "flock of wool," another innovation in the realm of sheep.[11] "Fleece," too, points to an Armenogreek innovation. It would seem that we are here on slightly more solid ground in that "lamb" and "fleece" may be shared innovations. Greek *κριός* has the meaning "ram" and also "kind of chickpea," a meaning shared by Armenian *siseṙn*. Unless we can suppose in Armenian a semantic shift paralleling the Greek in the name of the plant together with a subsequent loss of the meaning "ram" in that language, we cannot use this equation to fill out the picture. Could we do so, we would have very strong evidence of close linguistic relation since the major sheep words would all be cognate. As it is we have at least weak evidence of such relation.

6.b. Goat (IE ?):

ἄιξ	(she)-goat	ayc	Ziege
δίζα·αἴξ. Λάκωνες (H.)		tig	Schlauch
ἔριφος	kid	oroǰ	agnus, agna
τράγος	he-goat	aracem	weiden

Δίζα is too uncertain in Greek and the semantic link too weak to be considered. "Kid" likewise, though possible, seems formally remote, and the Greek word has a closer relation in Irish.[12] "He-goat" and "graze" are of course plausible, but plausible only: that the connection is likely is proved by the fact that the root *trag-* occurs only in Greek and Armenian. We will have to imagine that Armenian subsequently replaced *trag-* with other words in the meaning "he-goat" while preserving it in the meaning "graze." "(She)-goat," however, is and always has been one of the stars in the Armenogreek firmament. Indo-European seems to have had no single word for goat (if it had one at all), and the development (or adoption) of such a word (together with the animal?) is most impressive, and indicates a one-time cultural

identity (at least in this sphere). The cultural identity is further strengthened if one can then bring "he-goat" into the picture.

6.c. Pig (IE *sūs):

χοῖρος	young pig	gēr	fett

There is no point in discussing these words. They seem not to be related, and there are no further relations in the words for 'pig'.

6.d. Hooved animals:

-βοιον	cattle	kogi	Butter
ἴννος	hinny	ēš	Esel
μοσχίον	young calf	mozi	Kalb
πόρτις	calf	ort'	Kalb

"Cattle" is included only because both Greek and Armenian show a *y*-derivative (as does Sanskrit). "Hinny" is almost certainly not to be related to Armenian ēs. Πόρτις and ort' do seem related (though the *t-t'* correspondence causes difficulty), but there are numerous cognates in other languages which diminish the weight to be attributed to this pair. Μοσχίον is late and rare in Greek, but, like Arm. *mozi* is derived from **mozghos* (Greek *μόσχος*). Μόσχος generally refers to "young calf or bull," but can also denote the young of any animal, including humans (e.g. Eur. *IA* 1623). It may originally have meant "young animal" rather than "calf."

We see from the above that a fair number of herding words re shared by the two languages, and at the same time that agri-ultural words are by and large lacking. Greek and Armenian have ıch a large number of correspondences in this area of their vo-

cabulary that chance would seem excluded. Of the words denoting artifacts a number also can be included in a more or less pastoral context. We will return to this later. For the moment we may note that agricultural products and techniques must have been learned by the two peoples independently.

The list of probably cognate verbs found in these two languages alone is long, and on the whole uninformative. "Fear" (δειδω: *erkiwt*), "Clothe" (ἕννυμι: zgenum), "bury" (ϑάπτω: *damban*), "sharpen" (ϑηγω: *daku* "axe"), "swell" (οἰδέω: *aytnum*), "lie" (ψεύδομαι: *sut*' Lüge') are all general human activities, and hence even the closest phonological correspondence cannot aid us in our investigation here. Nonetheless two verbs have been frequently cited:

ἄρνυμαι	win, gain	aṙnum	nehmen
γελάω	laugh	ci-całim	lachen

Though any of the above may be related, more diagnostic for our purposes are several others:

ἕψω	boil	ep'em	kochen
ϑάλλω	sprout	dalar	grün, frisch
ὀφέλλω	increase	y-awelum	vermehren
ὀφέλλω	sweep	awelum	fegen

"Boil" is of course again a general human activity and can be inserted here only because of its connection with meat (though it is used also of cloth in Mycenaean and of metals later in Greek). "Sprout" also has an animal context, at least in Homer, where τεϑαλυῖαν ἀλοιφῇ (of pigs!) means "rich with fat."[13] "Increase" and "sweep" seem on the face of it unrelated notions, and the fact that two languages share a single word for both meanings is most im-

pressive. There is no particular animal context with these words, but there is the domestic (e.g.) in οἶκον ὀφέλλειν "increase the household property" (*Od.* 15.21).

Greek αὐλή "courtyard" has within Greek the related words ἰαύω "spend the night" (used of both people and animals) and possibly ἄεσα "sleep," always with νυκτι "night." Armenian has the same root in *awt* 'Stelle des Ünbernachtens' and *aganim* 'übernachten'. All of this is conformable with grazing, but does not demand it. Greek κορέννυμι "satiate" may have originally meant "feed (of animals)," particularly if the old Ionic tribe Αἰγικορεῖς originally meant "goat-feeders" or something similar.[14] Armenian has the noun *ser* 'Abkunft, Geschlecht" which may be cognate. In this latter case, however, closer cognates exist elsewhere, particularly in Lithuanian *šérti* 'füttern.'

Insofar as these words can be inserted into a pastoral context they are probative of relationship. At this point a thorough examination of pastoral vocabulary in both Greek and Armenian is necessary. This I cannot give, but in order to test frequency of occurrence in pastoral contexts of words shared by Greek and Armenian I have taken the vocabulary of Theocritus' eleventh idyll (lines 19-79) and checked it for the linguistic relations of its nouns. There are five categories of words: inherited Indo-European words, words borrowed from some other source and Greek only, words shared with other Indo-European languages, words of Greek formation not shared with other languages, words shared by Greek and Armenian.

1. Indo-European words denote natural phenomena: sheep, wolf, milk (vb.), water, winter, night, fawn, bear, tree, fire, plait (vb.). Perhaps to be included here are ποιμήν "shepherd" and ἀμάω "reap grain."

2. Borrowed words are all flora, probably of the Mediterranean: unripe grape (ὄμφαξ), leaf (φύλλον, though Latin *folium* must somehow be related), sweet bay, cypress, ivy, vine, white lily (κρίνον), petal of poppy (πλαταγώνιον).

3. Words shared with other Indo-European languages — some perhaps of Indo-European origin — are of various sorts, but generally denote products: βοτάνα: "pasture" (from βοτόν and related to Lithuanian *gúotas* 'Herde'?), ὁδός "road"

(cf. Russian *chod* 'Gang, Verlauf'), *γάλα* "milk" (Latin *lac*), *τυρός* "cheese" (Avestan *tu-¹ri-* 'käsig gewordene Mich), *ξύλον* "timber" (Lithuanian šùlas ('Eimer-, Tonnen-) Stab, Ständer, Pfeiler') *μάκων* "poppy" (OCS makŭ 'Mohn').

4. As one would expect there is no particular coherence to the group of words formed within Greek from Indo-European resources: *ὄρος* "mountain" from a root √r "rise up"; *θέρος* "summer" (see above), *ὀπώρα* "fall" (**op-o(s)ar-a*), *συρίζειν* "pipe" (?), *σκύμνος* "whelp" (somehow related to *σκύλαξ* "young dog" which is in turn perhaps [Frisk GEW II.741] related to Armenian *c'ul* 'junger Stier' from IE **skul-*); *χέρσος* "dry land" (perhaps related to Skt. *harṣate* 'starr werden'); *σποδός* "ember" (unexplained); *τάμισος* "rennet" (to the root seen in *ταμεῖν* "cut": I do not believe this etymology); *ταλάρως* "basket" (to the root seen in *ταλάσσαι* "carry"). Not only does this group lack coherence, in many cases it lacks plausibility.

5. The correspondences with Armenian have already been discussed, but all have to do with herding and generally pastoral and outdoor pursuits. They are: *αὐλίον* "fold," *ἀρήν* "lamb," *μοσχος* "calf," *τάρσος* "basket," *ἄντρον* "cave," *χιών* "snow," *ἦμαρ* "day," *θαλλός* "shoot."

Theocritus was probably unaware of the possible relation of Armenian and Greek, but his pastoral vocabulary does show a fair number of words which appear also in Armenian. It is time to sum up, and I here list all the words (in English translation of the presumed original meaning) which point to relation in the pastoral realm. All these words are Greek and Armenian alone — I do not consider words with cognates elsewhere. They are: cave, fold, basket (for drying cheese), lamb, fleece, (she)-goat, (he)-goat, calf, shoot. To this list other words can be added as one finds other cognate pairs convincing. It is enough here to indicate these relations.

On the basis of the above evidence it seems fair to conclude that the vocabularies of Greek and Armenian contain shared features, that these features indicate a shared culture, that the shared culture included at least pastoral items and perhaps more particularly, herding words having to do primarily with sheep and goats.[15] Sheep and goats can be herded together, though in Greece at least they are now (and probably always have been) generally

kept separate. They do, however, share certain grazing characteristics, including the type of fodder and geographical and climatological habits; they graze on grass and shrubs, generally moving into the mountains in the summer and down to the plains in the winter. A people engaged in such herding activities is likely to be nomadic and to add to the geographical coordinates mentioned that of north and south.

Given that Greek and Armenian are related — and I think we must grant that for a number of reasons —,how can we place them on the diagrams presented earlier? The fact is that we cannot, and any scheme seems possible. Given, though, that both languages share many features with other Indo-European dialects, we are probably justified in adopting Ia and then allowing Ib and Ic to represent successive chronological stages: we cannot determine whether the shared innovations took place within Indo-European or outside it. I see no particular reason from the vocabulary to suppose a prolonged period of linguistic contact for these two languages outside the area of proto-Indo-European speech. A minimalist hypothesis would posit a group of herders speaking dialects of the same language moving about together within the geographical range of Indo-European speech. These same peoples may have stayed together even after the dissolution of the Indo-European speech community, but I find no compelling evidence for this. For our purposes, however, it is enough to have shown that Greek and Armenian are related at least in the vocabulary of herding.

FOOTNOTES

[1]G. Djahukian, "On the Position of Armenian in the Indo-European Languages (On the Areal Characteristics of the Armenian Language)" in *First International Conference on Armenian Linguistics: Proceedings*, J. A. C. Greppin, Ed., (Delmar, N.Y. 1980) 3-16.

[2]Sub-grouping is in turn a two-fold historical problem. One should in principle distinguish between the spread of linguistic changes across a linguistic continuum which is properly the realm of dialect geography; and the sharing by several languages of innovations quite distinct from changes elsewhere in the same language family. The so-called "Wave Theory" of linguistic change accounts best for the former and its field of application is (again in principle) undifferentiated Proto-Indo-European. The latter scheme applies after the original speech community was fractured and is best represented by the "Family Tree" model of linguistic history. In practice it is frequently impossible to distinguish between the two situations in linguistic reconstruction, and for a simple reason: in both cases the linguistic mech-

anisms of change and development are the same. Cf. W. P. Lehmann, *Historical Linguistics* (New York, 1962) 137-146 and Raimo Anttila, *An Introduction to Historical and Comparative Linguistics* (New York, 1972) 300-309.

[3]X Y Z W T denote other Indo-European languages, L M N O are non-Indo-European. There is no significance to the relative position of the letters on the diagram. The fact that they are enclosed in a lozenge signifies that we are dealing with a single speech community. No lozenge means no community, though there is no implication to be drawn about times and distances.

[4]H. Frisk, *Griechisches Etymologisches Wörterbuch*, 3 vols. (Heidelberg, 1960-1972), abbreviated in what follows as *GEW*. The most complete recent discussion of Greek-Armenian correspondences is that of G. R. Solta, *Die Stellung des Armenischen im Kreise der Indogermanischen Sprachen* (= *Studien zur Armenischen Geschichte* 9), Vienna, 1960.

[5]Cf. C. Watkins, *Indogermanische Grammatik* III. 1 (Heidelberg, 1969) 134.

[6]The grade of the ending is different, however, and one must therefore derive the accessory morphological information that *-o:r* (Armenian) *:-ar* (Greek) was a living alternation in early Armenogreek. This same relation is found also in Greek ὄναρ : Armenian anurǰ (< *onōr-yo-) 'dream,' one of the most convincing (isolated) connections between Greek and Armenian.

[7]The vowel of the first syllable is not the same, and one must therefore assume ablaut ō : ə, an unlikely phenomenon in a noun. Hence one is driven to the further assumption of a verbal root **prōk-* : **prək-* of which the attested forms are the *-to* participle. All this seems unlikely.

[8]Such a world view is seen most clearly in Hesiod's *Theogony*, particularly 535ff. The only difference there between men and gods is that the latter are immortal. Cf. also Hesiod Fr. 1.7-8.

[9]Cf. J. T. Hooker, "*γέφυρα*: a Semitic Loan-word" in *Current Issues in Linguistic Theory*, vol. 11 (Amsterdam, 1979) = Festschrift for Oswald Semerényi on the Occasion of his 65th Birthday (Ed. B. Brogyanyi) 387-398.

[10]*Classical and Middle Armenian Bird Names* 82 (Delmar, N.Y., Caravan, 1978).

[11]In Greek *μαλλός* "fleece, flock of wool" (*Glotta* 59[1981] 70-75). In this article Greppin provides necessary clarification of the Armenian *mal* which does or, perhaps, did mean "male sheep, ram" and not "wether, castrated sheep."

[12]Cf. Frisk *GEW* 1.560.

[13]Cf. S. Lowenstam, "The Meaning of IE **dhal-*", *TAPA* 109 (1979) 125-135.

[14]The word is, however, probably sarcastic and ironic and means "goat-stuffers" or the like. One will compare the demeaning names of tribes given by Cleisthenes at Sikyon (Herodotus V.68), names derived from "pig" and "goat."

[15]It might be worthwhile mentioning at this point that Herodotus (V.49.35) refers to the Armenians as *πολυπρόβατοι* "of many sheep and goats." It may be worth noting that Herodotus refers to the Phrygians with the superlative of this adjective: they have the most sheep and goats of any people he knows. Some have supposed a close relation between Phrygian and Armenian and also further with Greek. Cf. Solta 461 (with n. 3).

‘Lièvre’ et ‘courrier’ en arménien et en iranien

ANAHIT PÉRIKHANIAN

Institut vostokovedenija, Leningrad

1. Arm. napastak ‘lièvre’

Le mot *napastak* que l’on trouve attesté à partir des plus anciens textes arméniens, est le seul vocable pour ‘lièvre’ en arménien classique, le seul en arménien moderne également. On en connaît nombre de formes dialectales tels que *lapʻusdog* (Zeytoun), *ləpəstrak* (Makou), *lapəstrak* (Van), *lapəstrag* (Bitlis), *labəstrag* [(Moush), *labəzdrag*] (Alaškert), *alapəstrak/alapastrak* (Erévan), ələbástrak (Karabagh) et autres.[1]

Il s’agit clairement de diverses défigurations de *napastak*, forme primaire, et l’on en trouve déjà des exemples dans les textes du moyen âge, chez Vardan d’Aïguek (XII — XIII ss.; *alapaztrak/lapastak*) et chez Thomas de Mecopʻ (XIV — XV ss.; *lapastak*). Ce fait n’est pas à surprendre, le nom de cet animal ayant été soumis au tabou dès l’époque préhistorique. Dans la plupart des langues indo-européennes les désignations du ‘lièvre’ remontent à i.-e. **k̂as-o-*, **k̂as-en-* ‘(le) gris’, lequel est bien un “cache-nom” (Deckname). Il est de même avec le mot grec λαγωός *(hom.)*, λαγώς (att.), de* λαγ(o)-ω[υ]ος[2] litt. ‘aux oreilles pendantes’. Un “cache-nom” analogue pour ‘lièvre’ est connu en iranien (cf. pehl. *xargōš*, pers. *xarguš*, sogd.*γrγwšk* litt. ‘aux oreilles d’âne’, ossète *tærqūs* : tærqos litt. ‘aux longues oreilles’), en géorgien (*Kʻurdgeli*, au lieu de *qurdgeli qur* ‘oreille’ + *dgeli* ‘long’) et même en berbère (bu *imezgīn* ‘animal aux longues oreilles’[3]).

Notons ensuite que les transformations dialectales de *napastak* sont, elles aussi, très caractéristiques d’un vocable taboué. C’est l’initiale du mot qui s’en est trouvée atteinte,[4] alors que l’intrusion de [-r-] après le groupe [-st-] ne saurait être interprétée comme un trait dialectal, ni comme une survivance, dans les dialectes, de [-r-] qui aurait été propre à la “forme ancienne” du vocable, mais qui ne se serait pas conservé, selon H.Adjarian (loc. cit.), dans celle de l’arménien classique. Une pareille survivance n’ayant pas d’exemples en arménien, il est impossible d’accepter la reconstruction (arm. **napastrak*) fondée sur ce postulat et que H.Adjarian propose sans essayer de l’appuyer d’une analyse étymologique. En ce qui regarde les formes dialectales, il s’agit bien de défigurations

issues d'un tabou. Pour expliquer ce mot, il faut donc partir de la forme attestée dans les textes les plus anciens, dont la traduction arménienne de la Bible.

L'aspect phonétique de arm. *napastak* fait penser à un emprunt à l'iranien, bien que le vocabulaire connu de l'iranien ne paraisse pas comporter de mot issu de iran. **nipastaka-* signifiant 'lièvre'. Toutefois, le vocable arménien ne pouvant refléter que le mot parthe **nipastak*,[5] c'est bien cette forme qu'il faut expliquer. Il s'agit, évidemment, d'un adjectif verbal substantivé, iran. **nipasta-ka-* (de **ni* + *pat-* 'voler/tomber', ou bien de **ni* + *pad-* 'tomber') 'qui se terre, qui se blottit contre terre'. Partant de ce sens primitif, il n'est guère difficile de supposer pour ce mot un emploi au figuré à l'acception de 'peureux', 'timide'. Or, 'peureux', 'timide' est un épithète communément appliqué au lièvre. Il suffit d'évoquer ici gr. *πτώξ* 'qui se blottit, se terre' → 'peureux' (de *πτα-/πτω-*, i.-e. **pteH-*; cf. le verbe *πτώσσω* 'se blottir de frayeur'), épithète de *λαγωός* 'lièvre' chez Homère (Il. 22, 310; cf. Il. 17, 676), chez Eschyle (Eum. 326; emploi métaphorique). Devenu courant, ce qualificatif était employé en tant que nom générique de cet animal, cf. *ἄπτωξ* 'sans lièvres', *πολύπτωξ* 'riche en lievres'.

Ainsi arm. *napastak* nous permet de restituer une ancienne désignation du lièvre en iranien. C'est un "cache-nom", comme le sont tous les autres appellations iraniennes du lièvre, que ce soient les mots mentionnés plus haut, ou les représentants de iran. **saha-* (<i.-e. *k̂ās-o-*'le gris'): avest.* *saŋha-* lequel nous est parvenu en transcription pehlevie *shwk*,[6] khot. *saha-*, afgh. *soy.*

2. Arm. surhandak 'courrier'.

Ainsi que le mot étudié ci-dessus, arm. *surhandak* 'courrier' est attesté depuis le V s., dans la Bible notamment, mais en d'autres textes aussi. Son sens — le mot traduit gr. *ταχυδρόμος* — est clair, son origine parthe ne fait aucun doute. Or, malgré plusieurs tentatives de l'expliquer, ce mot échappait à une analyse satisfaisante. H.Hübschmann y voyait une formation à suffixe *-andak*, formation analogue à celle de *bavandak*, *žīvandak*.[7] H.W.Bailey le prenant — et à juste titre — pour un composé, essaie de l'expliquer en divisant la forme arménienne en deux éléments constitutifs, *sur* et *handak*, dont le second serait à rapprocher de *handak* 'rapide' *handāčišn*, *handāčēt*, mots pehlevis figurant dans la traduction de l'Avesta où ils rendent avest. *vōiϑwa-*, *vyeiti*, ainsi que de khot.

hamdajsāre 'ils galopent'.[8] Pour le premier composant, il hésite entre arm. *sur* 'aigu' et ossète *sūryn* : *syrd* / *sorun* : *surd* 'expellere', 'chasser; poursuivre', mais sans ajouter grande, créance à aucun de ces rapprochements. Cette analyse a été acceptée par O.Szemerényi.[9]

De l'explication fournie par H.W.Bailey nous ne retiendrons ici que deux points, en les modifiant de façon essentielle. Il s'agit bien d'un composé, mais d'un composé iranien (= parthe) et emprunté comme tel: le mot n'a pas été créé sur le sol arménien avec des éléments empruntés ou mixtes. Il comporte, en tant que son second composant, un dérivé de la racine **tāk-* 'courir etc.', mais un dérivé non-préfixé, le même qu'on voit en parthe *mwǰdgd'g* (= *muždagdāg*) 'messager'; cf. m.-perse *myzdgt'zyh* (= *mizdagtāzīh*) 'message, Evangiles', sogd. *mwzt'k* 'gospel-bearer', c.-à-d. dans les vocables au sens très proche de celui du mot arménien.

L'original parthe de arm. *surhandak* 'ταχυδρόμο ' se laissant restituer comme **suhrandāk*, il nous paraît possible de le ramener de iran. **sudram-tāka-* litt. 'qui court en hâte.' Le premier constituant de ce composé présenterait alors un adverbe **sudram*, bâti sur iran. **sudrá-* (adj.) 'hâtif, pressé.[10] Quant à iran. **sud-* 'se hâter, se presser', ce radical est largement attesté en sogdien, [11] peut-être aussi dans le Psautier pehlevi (194, 5: *swd'tyš'n*). Il existait, en parthe, un substantif **sōd* 'hâte' qui s'annonce en arm. *-soyr* des composés *aršawasoyr* (Agathange), *galtasoyr* (Lewond), ainsi que dans le verbe *suram* 'se hâter, courir, se précipiter' (Eznik, Philon, Moïse de Khorène). Qui plus est, l'on peut signaler en arménien même les traces de l'adjectif **sudrá-* dont la forme parthe **suhr*, passée en arménien, y a donné arm. **surh* qu'il est facile à déceler dans le verbe dénominatif *surham*, *surhanam* 'se presser, galoper, courir'.

Parmi les textes manichéens de la collection de Berlin récemment mis au jour par W.Sundermann, il se trouve un fragment (M 466a) contenant dix lignes d'un texte parabolique en dialecte moyen-perse.[12] La première ligne porte: *swhrdr hynd*. C'est la fin d'une phrase dont le commencement ne nous est pas parvenu. L'éditeur la traduit (avec un point d'interrogation, bien sûr) par 'ils sont plus rouges ("röter sind sie")', prenant *swhrdr* pour le comparatif de *suxr* 'rouge'. Or, outre que l'orthographe du mot s'y oppose, — *suxr* 'rouge' s'écrit avec *ḥēt* et non avec *hē*, dans les textes de Turfan les cas d'un flottement de ces deux lettres étant rarissimes, — le contenu de la phrase suivante n'authorise point cette

interprétation. Le contexte se laisse restituer ainsi. Deux ou trois hommes entrevoient sur la route un cavalier allant au galop. Alors, pour le rattraper, ils prennent une allure plus rapide (*swhrdr hynd*). L'ayant regagné, ils lui posent une question: "Cavalier (*'sw'r*), qui es-tu, toi, qui vas à si grande allure (*ky 'ydwn shynyh' dw'ryh*)?" Et le cavalier leur raconte, qu'il vient d'être assailli par un malfaiteur (*dwjn'm* 'mal-famé') et qu'il a reçu des blessures. La conclusion à en tirer est claire: c'est bien l'adjectif *suhr* (<**sudra-*) 'pressé, se hâtant' que ce fragment nous assure.

FOOTNOTES:

[1]Voir H. Ačarean, *Hayeren armatakan bararan III*, Erévan, 1977 (2 éd.), p.428-429.

[2]E.Schwyzer, *KZ* 37 (1904), p.146 suiv.; voir aussi O. Szemerényi, *Studi micenei* 3 (1967), p.85 suiv. (<*λαγωFῆς).

[3]L'appellation berbère est citée par E.Benveniste, *Die Sprache* I (1949), p.119.

[4]Pour ce trait voir W. Havers, *Neuere Literatur zum Sprachtabu*, Wien, 1946, p.123-125.

[5]Le flottement de timbre (i / a) de la voyelle du préfixe - arm. *nahanǰ* parthe *nihanǰ* (cf. parthe man. *nhynǰ*) nous en donne un autre exemple — est largement attesté en persan où il pourrait etre de date plus ancienne qu'on ne le pense.

[6]Voir G. Klingenschmitt apud. M.Mayrhofer, *Etym. Wb. d. Altind.*, III, 316-317.

[7]H. Hübschmann, *IF* X (1899), Anzeiger, p.36.

[8]H. W. Bailey, *BSOAS* 20 (1957), p.56; 21 (1958), p.531-533; id., *Prolexis to the Book of Zambasta*, Cambridge, 1967, p.386.

[9]O. Szemerényi, "Studies in I-E Kinship Terminology," *Acta Iranica*, 16, Téhéran — Liége, 1977, p.84.

[10]Pour la composition cf. sanscr. *satyàm-ugra-*, *saman-bhumī*, *sākam-úks-* et autres; voir J. Wackernagel, *Altindische Grammatik*, II, I Göttingen, 1905, p.67-69.

[11]Voir W. B. Henning, *BSOS* 8 (1936), p.585, n.3 = *Selected Papers*, p.409.

[12]W. Sundermann, *Mittelpersische und parthische kosmogonische und Parabeltexte der Manichäer*, Berlin, 1973, p.100, 134.

An Armeno-Slavo-Tokharian Innovation

LUDVIGA A. SARADJEVA
Linguistics Institute, Yerevan

In the Indo-European languages there were, besides proper participles, certain noun forms that became part of the verbal system. Verbal adjectives with the suffix *-no-, *-to-, and *-lo- are among the better known, and these suffixes, unlike participles proper, form their stems not only from verbs, but from nouns as well. Before discussing the suffix *-lo-, which is the central point of this paper, I would like to comment briefly on the forms in *-to- and *-no-.

The verbal adjectives that are formed by these suffixes at first had no participial meaning. The suffix *-to- was widespread in Indo-European with the exception of Anatolian and Tokharian[1]. There are ample examples attested: Skt: *śruta-* "heard," Lat. *ornātus* "decorated," Lith. *siútas*, etc. In addition to forming verbal adjectives, the suffix *-to- was used to form verbal nouns: Gk. *φορτός* 'burden,' Lat. *status* "standing," OCS *životŭ* "life," Arm. *mard* "man" (< *mṛ-to-). Other words have a possessive value: Gk. *κοντωτός* "having a hook," Lat. *scelestus* "criminal," Lith. *kalnúostas* "hilly," etc.

The suffix *-no- functioned quite similarly to *-to-, and was used in two principal ways: to form verbal adjectives: Skt. *pūrna-* "full," OCS *plĭnŭ*, OIrish *lān* 'id', etc.; and to form nouns denoting an action: Arm. *k'un* "sleep," Gk. *ὕπνος*, Arm. *lusin* "moon," Gk. *λύχνος* "lamp."

Later on the verbal adjectives with the suffixes *-to- and *-no-, as was mentioned above, became involved with the verbal system. With the help of these suffixes, passive (past) participles were formed in Germanic, Slavic, and Sanskrit. Germanic used *-to- in the system of weak verbs and *-no- with the bulk of strong verbs (*geboren* 'born'); in Slavic languages the suffix *-no- was preferred, and the suffix *-to- is retained only in rare cases[2] (Slav. *bijenŭ* from *biti*, etc). In Sanskrit almost all roots ending in *-d-* formed the corresponding verbal adjectives with the help of the suffix *-no-, in the rest of cases with help of the suffix *-to- (Skt. *bhinna-* from *bhid-* "split," *anna-* from *ad-* "eat," etc).

Unlike these two suffixes, the suffix *-*lo*- functions similar to a participle only in a few language systems which include Armenian, Slavic, Tokharian, and probably Anatolian languages.

For the suffixes *-*to*- and *-*no*-, the function of verbal adjectives formation is almost as widespread as the other functions; however, for the suffix *-*lo*- this function is innovated, covering a definite part of the eastern area.

The primary functions of the suffix *-*lo*- as well as the suffixes *-*to*- and *-*no*- were: 1) to form verbal nouns, though mainly from *nomina agentis* and partially from adjectives close to them: Lat. *bibulus* "drinking," *tremulus* "shivering," Gk. *σιγηλός* "tacitern"; 2) to form adjectives from other adjectives: Skt. *bahulá-*' plentiful'; (from *bahú-* 'plenty'); Gk. *παχυλός* "fattish" (from *παχύς* "fat"): 3) to form diminutive nouns from nouns: Lat. *agellus* (from *ager* "field," "a small field"), *porculus* "sucking-pig" (from *porcus* "pig"), Lith. *paršẽlis*.

As a result of a lengthy and complicated process the Classical Armenian participles as well as verbal adjectives with *-*to*- and *-*no*- were changed and are reflected now only by some forms that do not form a unique system and which do not play any role in the formation of participles. This function is almost completely fulfilled by forms that go back to Indo-European stems with the suffix *-*lo*-.[3] The following forms should be mentioned among them: (1) participial forms with the suffix *-eal;* (2) the suffix *-li*, (gen. *lwoy*); and (3) suffix *-loc'*, a secondary inner-Armenian formation.

In addition to the function of forming participles, this suffix was used for the formation of infinitive forms with the endings *-el*, *-al*, *-il*, *-ul*, with a partially modal meaning. The participles with the suffix *-eal* going back to the stems of sigmatic aorist: *-*is-a-* + *-*lo*-.[4]

The past participles in *-eal* were widely used for the formation of compound analytical tenses — perfect and pluperfect as well as the subjunctive mood: *bereal em, es, ē* etc.; *bereal ēi, ēir, ēr*, etc.; *bereal ic'em, ic'es, ic'ē*, etc.

The participles in *-li-* have modal meaning, expressing obligation: *sireli* "the thing (or person) that should be loved," *bereli* "the thing that should be drunk." Transitive verbs form participles with the suffix *-li-* to express primarily the meaning of *nomina agentis*, such as Lat. *credulus* "believing," *bibulus* "drinking;" Cf. Arm. *tesaneli* "seeing," *harkaneli* "hitting." The participles in *-li*,

in contrast to forms in *-eal* and *-loc‘*, do not have proper tense forms and a full paradigm: they are used only with the third person singular of the verb "to be" to express an action fulfilled out of necessity.

The forms in *-loc‘* are actually future participles. They are formed from the infinitive in -1- with the formant *-oc‘*. Such participles express action which will take place in future: *sireloc‘*, *bereloc‘*, *arbeloc‘*, etc. They are used also to form analytical tenses — the future and future in the past, as well as subjunctive in the future: *bereloc‘ em, es, ē*, etc., *bereloc‘ēi, ēir, ēr*, etc., *bereloc‘ ic‘em, ic‘es, ic‘ē*, etc.

In the remaining languages of the same area (Slavic, Tokharian, Anatolian) the forms in *-l* do not have such full system as in Armenian.

In Old Slavic the participle in **-lo-* coexisted with the participles in **-no-*, **-to-*, **-mo-*, **-nt*, and others. They were the so-called perfect participles, which formed perfect tenses with the help of the verb "to be," namely, perfect tense proper, past perfect, and future perfect, and served also for the formation of subjunctive mood. Without auxiliary verb these participles were very seldom used — either to express desire (unreal), or after the words *ješa*, *jarou* "yes," or, being formed from intransitive verbs, were adjectives in the meaning close to perfect: *zřelŭ* from *zřeti*, etc. These functions are analogous to those of the Armenian participles in *-eal*, and the models of perfect and past perfect are quite identical: the perfect in Armenian and Slavic is formed by the present forms of the verb "to be" plus participle in *-l*, past perfect — correspondingly, with the imperfect of the verb "to be" plus participle in *-l*. Cf. first person singular Slav. *bralŭ jesmĭ*, first person singular pluperfect, Slav. *bralŭ běchŭ*, etc.

In Tokharian[5] the stems of present and conjunctive were used to form gerunds: Tokh. A in *-l*(<**-lo-*), Gerundive I Tolh. B in *-lye*, *-lle* (**-yo-*) (from the stem of present) denoted an action which was to take place, Gerundive II (from the stem of conjunctive) denoted an action which might take place.

Examples of gerundive: Tokh. A *(tā)ke arthäntu puk āneṃśi ritwäṣlam* "all the meanings must be translated"; Tokh. B *kärsänälyem wäntarwane snai prayok ka sportotär* "(he) behaves unfamiliar (in) the things which one must know;" *mā ste waike wesälle* "a lie must not be said." Gerundive I is often used as a predicative

with or without a linking verb with the meaning of "to order" (prohibition): *arya warmentse aiśle* "*Aryabarme* is given (must be)."[6]

Examples for Gerundive II: Tokh. A *klopasu wrasom mā ontāṃ tmaṃ kälpāl tāk* "the suffering creature was not to be found there;" Tokh. B *mäksu no samāne . . . aletsai aśiyaimeṃ ṣañ ṣarsa trāska lye tsāltalye eñcitär* "which monk takes something eatable from a strange nun."[7] The forms of participle in **-lyo-*, which are found in participles indicating obligation with suffixes *-lye*, *-(l)le-*, correspond precisely to the Armenian participles in *-li-*: cf. *yokalle* "something that must be drunk," *swalle* "something that must be eaten" (cf. Arm *bereli* "something that must be brought").[8]

Among the Anatolian languages, the forms in *-l-* were most widespread in Lydian.[9] In contradistinction to Hittite in which the forms in *-l-* are represented by a few noun derivatives, such as Hitt. *dalugnula* (from *dalugnu-* "to lengthen"), in Lydian they turned into finite forms of the third person singular preterite, such as Lyd. *fadol* "erected," *katavil* "put," the meaning past tense in these Lydian forms being combined with modal shading.[10] This makes the similarity between them and the development of corresponding Slavic forms still more striking, the latter ultimately going back to the verbal nouns in *-l*. Some forms in *-ol* may probably be interpreted as infinitives. In that case it is possible to draw a parallel between Lydian and Armenian forms in *-l*: Arm. *sirel* "to love," *tal* "to give;" Lyd. *arvol* "to take possession." When this word is divided as *ar-v(-)-ol*, it becomes possible to correlate it with the Hitt. *ar-nu- wa-la* "those, who must (or may) be taken away"; Lyd. *ifrol* "?" (cf. the kin word *ifr-li-* "burglar"). There were also infinitives in *-(a)l*, e.g., *savvastal* "to keep, preserve."[11]

For forms in **-lo-* V.V. Ivanov suggests further relationships with Hittite and Baltic.[12] Such relations in his opinion are revealed in Hittite forms as optatives where -u has appeared by analogy with other forms of imperative comparatively late (e.g., *aššallu* from *eš* 'to be').

> If we assume that the Hittite voluntative in *-l* has been developed from the verbal nouns in *-l* with modal meaning, which later on was included into the imperative paradigm with the ending *-u*, it will be possible to relate it with Tokharian forms in *-lye* with the meaning of obligation, and with the Armenian forms in *-li* . . . To such verbals in **l(i)-* with modal meaning one should relate the Baltic forms, such as Olith. *esle (esto, 'sic ita')*, *esliui* (cf. Hitt. *ašallu*, *ešlit)*, Lettish forms of first person singular conditional in *-tu-*

ǰu, first person singular present tense in -ǰu-, which J. Endzelīns[13] considers to be derived from one and the same source, namely the third person singular of the imperative in *-la* (found in Latvian folk songs) and Prussian optative in *-lai*.

If this suggested treatment is correct, then the Baltic languages will reveal forms parallel to Slavic verbal nouns in *-l*, in combination with words of the O. Slav. type *bimĭ*, Russ. *by*; these might be used in modal meaning, close to the Latvian forms in *-tu-lu* and corresponding Tokarian, Armenian, and Hittite forms in *-l(i).

The above mentioned material on the relationship of Armenian, Slavic, Tokharian, and Antolian (Lydian) may be summarized in the following table:

	Arm.	**Slav.**	**Tokh.**	**Lyd.**
1. Participles in **-lo-*	+	+	+	–
2. Compound participles in **-l(i)-yo-*	+	–	+	–
3. Formation of the infinitive	+	–	–	+
4. The use of participles in compound tenses:				
a) Perfect	+	+	–	–
b) Pluperfect	+	+	–	–
c) Conjunctive	+	+	–	–
5. The use of participles in simple tense without	+[14]	+[14]		
link verb	–	–		

Thus, on the basis of the given material it is possible to draw the following conclusions:

1. In the area discussed the closest affinity is revealed between Armenian and Slavic, in which the similarity in the formation of participles is most striking. It is also revealed in the further functioning of these forms in the system of compound tenses and subjunctive mode, while in Tokharian the

use of participles in *-l* is limited to the formation of Gerundive I and II; in Lydian to the use of third person singular of the preterite and probably infinitive.

Further relations seem to be revealed between Hittite voluntative and Baltic optative in *-l*.

2. In spite of the affinity of Armenian and Slavic in the formation of compound tenses, Armenian differs in two respects, which brings it closer to Tokharian on the one hand (the existence of forms in **-l(i)yo-*, Arm. *-li-*), Tokh. B and Lydian (the formation of infinitive) on the other hand.

3. On the basis of the data discussed one must adopt E. Benvenist's opinion to the effect that the formation of participles in *-l* in Armenian, Tokharian, and Slavic is a dialectal innovation. It is a very particular case and cannot be considered as a result of parallel development in independent languages.[15]

FOOTNOTES

[1]O. Semerin'i (Semerényi), *Vvedenie v sravnitel'noe izučenie indoevropejskix jazykov*, Moscow, 1980. 336.

[2]A. Meje (Meillet), *Obščeslavjanckij jazyk*, Moscow, 1951. 216.

In Old Slavic the productiveness of the suffix *-n-* was increasing, involving larger area of stems. In later old-Slavic documents participles in *-n-* are met, which earlier were used with the suffix *-t-*.

[3]A. A. Abrahamian, *Hayereni derbaynerə ev/nranc' ǰevabanakan nšanakut'yunə*, Yerevan, 1953, pp. 122-172.

[4]L. Mariès, "Sur la formation de l'aoriste et des subjonctifs en -ç-in arménien." *Revue des études arméniennes*, t.X, 1930, pp. 167-182.

[5]*Toxarskie jazyki*, Moscow, 1959. 68-69.

[6]*Ibid.* 193-193.

[7]*Ibid.*

[8]E. Benveniste, *Tokharien et indo-européen*, *Festschrift H. Hirt*, Bd 2, pp. 227-240.

[9]Vja. Vs. Ivanov, *Obščeindoevropejskaja, praslavjanskaja i anatolijskaja jazykovye sistemy*, Moscow, 1965. 50.

[10]A.J. Pfiffig, *Studien zu den Agramen Mumienbinden*, Wien, 1963. p. 20.

[11]S. Alp, "Die sociale Klasse der NAMRA-Leute," *Jahrbuch fur Kleinasiatische Forschung*, I, Heidelberg, 1950.

[12]V. Ivanov, *Recenzija na knigu:* E. Benveniste, *Hittite et indoeuropéen*, *Etudes comparatives*. Paris, 1962, - *VJa* 1963. 4. 127-136.

[13]J. Endzelīns, *Latviešu valodas gramatika*, Riga, 1951. p. 789.

[14]The use of past participles without link-verb in classical Armenian and Old Slavic is a rare phenomenon (cf. Arm. *vasn orey p' oyt' arareal mer patmeloy* "about what we tried to tell," Old Slav. *sŭgrešilŭ Adam i oymzetŭ* (Sypr. Mss 493.26) "Adam sinned and died." Out of Old Slavic it is typical to Russian where the perfect form in *-l* without link verb was used as a folk form, and later as a literary form of aorist.

[15]*Toxarskie Jazyki*, p. 97.

Armenian Miscellanea

ERIC P. HAMP
University of Chicago

eresk^c

The genitive is *eresac^c*; therefore the final of this plurale tantum should be *-ḱā.[1] If we are to equate this noun with Greek πρόσωπα,[2] we shall need to derive er- from *proti-. If the formation is that of other nouns for 'face,' the portion following the first element should be *-$H_o k^w$- (akn).

A sequence *proti-$H_o k^w$iḱā, could give *protik^{w}iḱā >*φroiih-iśa- > *roiiisa-. This does not promise to yield eresa-. If we resyllabify *proti$H_0 k^w$iḱā, then we get *proti(i)ək^{w}iḱā > *φroịịahiśa- > *roiaịisa-. Again, this not promising. If *φroịịa-hiśa- had suffered a kind of haplology, eliminating oi, we would have *φriịahiśa-; this leads to *ria(ị)isa- > *erea(y)sa- > eresa-.

Then the shorter form eres-k^c was vocalized by analogy with the penult vocalism of eresa-.

FOOTNOTES

[1]See "The semantics of Armenian plurals." *From Soundstream to Discourse* (Papers from the 1971 Mid-America Linguistics Conference), Columbia, Missouri, 1972, 66-71.

[2]*BSL* 68, 1973, 77ff.

aseɫn

Since the *l*-stems remain alive in Armenian, we cannot have here a frozen ācc. sg. The formation then suggests an old heteroclite. The vocalism *-eɫ-* suggests a non-neuter, and Greek ἄκρος

which cannot be a participial *-ró- suggests a replacement of a moribund animate, shifted to the surviving, *r/n heteroclites; the n-state of the stem is furnished by Ved. *aśáni-h* = Lith. *ašnìs*. We recover, then, **asel/asn-* < **ak̂-el/n-*, parallel in formation to 'sun'.[1]

FOOTNOTE

[1] *Bulletin of the Board of Celtic Studies* 26, 1975, 97-102.

vaṙem, vaṙim

The base *vaṙ-* 'kindle, burn' cannot be directly equated with Lith. *vìrti*, OCS. *vrěti variti* etc.[1], since it is clear that the regular reflex for simple initial IE *u̯ is Armenian g[2]. A reflex transcribed *v, w* must result from some kind of internal (medial) treatment. I have already suggested a solution along these lines for *vecᶜ* '6'.[3]

Meillet (*Esquisse* 50) has already proposed **(u)wer* < **uper* for *ger i veroy*. We may profitably follow that up, along lines of Schmitt *Grammatik* 76 § 12 X and 189.

Various related forms,[4] including Greek ὕψι, show us that IE had a particle base **up-*, or **hup-* as I would reconstruct it taking into account the Albanian evidence. We therefore propose a compound verb **hup + ur-ne-* (:κάμνω) 'heat completely, vel sim.' [hup-u̯r̥ne-]. By the IE rule deleting u̯ after labial obstruent, this becomes **(h)upr̥ne-* > **uwarne-* > *waṙe-*. The *r was originally strengthened to r̄ next to *n. If then the trans. **-ur-ne-* > **uwarne-* > **vaṙnem* and the intrans. **-ur-ē-* > **uwari-* > **varim* lived side by side, the pair was plausibly leveled to *vaṙ-* with the distinction carried by e : *i*. The form is too isolated to enable us to say whether the *u- was lost phonetically or by aphaeresis, since the syntactic collocations of **(en+)upéri* and **upr̥ne* were not identical.

FOOTNOTES

[1] See most recently R. Schmitt, *Grammatik des Klassisch-Armenischen*, Innsbruck, 1981, p. 70; *Kratylos* 17, 1972 (1974), 26. Dumézil's suggestion of *v- + *aṙ-* does not really explain, but is on the right track.

[2]See, e.g., J.A.C. Greppin. *AAL* 2, 1981, 3.
[3]*Linguistic and Literary Studies in Honor of Archibald A. Hill*, The Hague: Mouton, 1978, vol. III 81-90.
[4]See *Studia Celtica* 14-15, 1979-80, 106-13, esp. 109 for *ups-.

Locative yamsean

Godel (106 § 5.237) thinks that the locative *y-amsean* is an "extended form of *-i*," originating with *-st*, e.g., in *korust* gen.-dat.-loc. *korstean* "loss." But *amis* (and *cnund*) have no *i* forms and are *o*-stems. Such a form must be explained as a (partial) relic.

We must regard *amis amsoy* as an old neuter or masculine *s*-stem (cf. Baltic *mēnes-*), for which we reconstruct the pre-form *sm-mēns-os 'single-moon'; for the construction cf. *Proceedings of the 11th International Congress of Linguists*, Bologna 1975, II 1047-55, esp. 1050 footnote 14.

This locative must then be *sm̥-mēns-es-n̥-i > *am-mis-e-an(-i) > amsean*. Such a case form must have arisen through the conflation of two stem forms. In the older endingless locative we would have had *sm̥-mēns-es × *sm̥-mēns-en > *sm̥-mēns-esen → *-esn̥-i*.

ənd, ənto-cin

This ambiguous preposition may well have multiple sources. Schmitt *Grammatik* 165-6 opts for *en-tos, and this is highly likely because it agrees specifically with Greek ἐντός. Unless however we can assume a rule for proclitic vowel reduction, a source directly in *anti* is not possible, in view of my argument[1] for *and* 'illic' from *an + te < *H_a en to-*. Note that normal "pretonic" reduction is not proclitic.

Another possible source is *en-dhi*, the equivalent of the ancient locative *en-i.*[2] In view of the survival of *-ǰ* = Greek -θι in Armenian, such a formation is as likely as *en-tos*.

A closely related but distinct formation *ənto-cin* has been perceptively analyzed[3] by J. Weitenberg. He correctly identifies the initial element as *endV-, equating it with Greek ἔνδον. I would

equate the two exactly as *en-do, explaining the Greek as containing n-ephelkystikón and thereby attracted to the paradigm of δῶ (= Arm. *tun*).[4] An interesting Celtic analogue to *ənto-cin* is found in Welsh *anian, annyan* 'nature.'[5]

It seems that Armenian continues traces of *$H_e$en (> *i*), *$H_e$en-*tos*, *H_e*en-dhi*, and *H_e*en-do*.

FOOTNOTES

[1]*Papers in Honor of Madison S. Beeler*, edd. K. Klar, M. Langdon, and S. Silver (The Hague: Mouton) 1980, 343.

[2]See my analysis of this group, *Eriu* 28, 1977, 145-6.

[3]*Annual of Armenian Linguistics* 2, 1981, 85-9.

[4]See my analysis *Lingua Posnaniensis* 20, 1977, 11 footnote 4, and *Zeitschrift für celtische Philologie* 36, 1977, 9.

[5]I have analyzed this in *Bulletin of the Board of Celtic Studies* 16, 1956, 279-80.

cnund

The recoverable paradigm of this noun must be **ǵenont-* ≈ **ǵenont-es-n̥-* vel sim. (see *amis*); pl. **ǵenont-es*, acc. **ǵenont-()ns*, gen. **ǵenont-o-sḱo-*, instr. **ǵenont-o-bhVs*. Alternatively, instead of **ǵenont-es-n-* we may have **ǵenont-ia-n-*. So much for the phonetics.

Morphologically, the plural **ǵenont-* immediately suggests the type of γέρων. The combining form of **ǵenonto-sḱo-* and *-*bhVs* matches γεροντο-(διδάσκαλος). This all suggests that we should choose for the pre-form of the singular an old abstract **ǵenont-ia-(n-)*, which may be compared indirectly with γερουσία. Such an abstract-collective gives the nom-acc. **ǵenont-ī* > *cnund*, oblique **ǵenont-iā-*. The original derivation here was **ǵenH$_e$-ont-iH$_a$* to the middle verb *cnanim* < **ǵenH$_e$-n-(ē-)*(> **ǵen nē-)*.

A Note on Arm. *išxan* 'ruler'

JOHN A. C. GREPPIN
Cleveland State University

The correspondence between Arm. *išxan* "ruler" and Hitt. *išḫan-* 'id' has long been the key-stone in the Armeno-Hittite loan theory. Surely it is a clear example of phonetic and semantic harmony between the two languages, and a correspondence that would seem difficult to dislodge. The coördination was first made by Martirosyan (1924.458-9), though he proposed not a loan correspondence, but rather a genetic origin for the Armenian word that was parallel to the development of the word in Hittite. The next year P. Jensen (1925.82) suggested the loan relationship, a view that was repeated in Yerevan by Kapantsian (1956.81, 392). This etymology has since been mentioned with some frequency in the West (Schultheiss 1961.22; Greppin 1980.204 [additional bibliography can be found in Weitenberg 1979.73]).

Hübschmann, in his *Armenische Grammatik*, ignored what might have been the obvious correspondence of Arm. *išxan* with Iranian words derived from the root **xšā-* "to rule." His judgment, usually quite sound, was not contradicted until Benveniste (1929. 7-9) put into writing what others had perhaps suspected. Benveniste stated that Arm. *išxan* was directly from Iranian **xšāna-* by loan, a form that can be further coupled with such Middle Iranian forms as Sogd. *'γšš'wn* (**axšāvan*), the less diagnostic Kh. Saka *ṣṣau-* "official title," and of course NPer. *šāh* "king." No Parthian form is known, but its lack is not crucial to Benveniste's suggestion.

A principal difficulty with Benveniste's etymology was the lack of any parallel in Armenian for the metathesis of MPer. *xš-* to an Arm. *išx-* or even *Všx-*. Thus Benveniste's argument could not meet with the level of support that could be provided the Hittite correlation since problems existed on a phonetic level with the Iranian suggestion that did not exist in the Hittite parallel.

There is some fresh evidence that can be pointed to which would provide additional support for Benveniste's suggestion, evidence which might tip the balance away from Hittite origin. Metathesis of Iran. *xš-* in a loan to Armenian can be noted in the

word Arm. *bdeašx* "proconsul, mayor, prince," a word of Iranian provenance. The term is found in the earliest Armenian literature, from Agathangelos, Parpetsi, and Khorenatsi; in the Bible it appears four times in the reduced form *bdešx* in *Acts* 13.7, 8, 12; 18.12 where it replaces Gk. ἀνθύπτος "proconsul." Hübschmann (*AG* 119-120), followed by Adjarian (*HAB*), derives *bdeašx* from Ir. **pitiaxša*-, a form substantiated in Syr. *paṭaxšā*, Gk. πιτιάξης and Georgian *pitiaxši* and to which Adjarian, using later material, was able to add an attested Phl. *pātaxsāh*, in which we would see a NPer. *pādsāh* (پادشاه) "sovereign." The form that immediately preceded Arm. *bdeašx* was, approximately, Parth. **bdiaxš(ā)*, perhaps stemming from Ir. **pati-xšāyaθiya*- "ruler."[1] That there was no metathesis in the Middle Iranian forms is clear from the Georgian and Syriac forms.

Arm. *bdeašx* provides us with clear evidence for the metathesis of *xš- in Armenian loans. It fails, however, to tell us anything about the color of the prothetic vowel of Arm. *Všx*- (< Ir. *xš-) since the -*a*- of Arm. *bdeašx* reflects the original Iranian vowel of Parthian **bdeaxš(ā)*. But though we cannot find a precise parallel for the initial *i*- of Arm. *išxan*, we still have an acceptable parallel for the metathesis.

There is further evidence which would tend to support a Persian origin, and that is the suffixation of the Armenian stems from the root *išx*-. Armenian has, in addition to *išxan* "ruler," a verbal stem in *išx*-. Hittite, on the other hand, has only one stem, *isḫ̌*-, which is manifested in *išḫ̌ā*- "lord" and its feminine conterpart *išḫ̌aššara*-. It is not immediately obvious how Armenian could have derived both the verbal *išxem* and the nominal *išxan* from Hittite unless the suffixation was secondary within Armenian. The situation vis-à-vis an Iranian genesis is somewhat better. Though we cannot summon up an attested MIran. *xšāna*- as opposed to *xšā*-[2], we can certainly argue that the root *xšā*- existed, to which the common Middle Iranian suffix -*ān* was added[3].

Weighing our data, we can see that Hittite provides a more appropriate phonetic progenitor for the Armenian root, but is weak in explaining the suffixation. Iranian, on the other hand, provides only a moderately acceptable phonetic progenitor (though metathesis is explained, the color of the prothetic vowel is not). But Iranian evidence for the origin of the suffix -*an* is superior to what Hittite can provide. In balance, it would seem that Iranian origin for the Armenian stem is more appropriate.

FOOTNOTES

[1]The exact etymology of the Iranian word is open to considerable discussion. An article in Altheim (1970.528-537) discusses, among other things, the rapport between the Armenian and Iranian forms, but the importance of this article is exagerated. Other pertinent comments can be found in Frye (1956.518) and Szemerényi (1975. 354-392). The question, still undecided, about the exact form of the Proto-Iranian root does not in any way effect the Armeno-Iranian parallel, which is secure.

There is also a chance that the metathesis in Arm. *išxan* occurred in the Iranian period, for an ostracon discussed in Altheim (1953.16-18) seems to demonstrate, in Pahlevi, the form *'šḫn*:

mn 'šḫn msys[t...	"Von dem *išxan* Masiš[t..."
ḳšry ḫštrp[...	"Schloss des Satrapen[..."

[2]The Avestan root is *xšaya-* 'Herrscher, Fürst, König'; Skt. *kṣi-* (*kṣī-*). The development of Av. *xšaθra-*, Skt. *kṣatra-* is secondary and somewhat perplexing.

[3]Armenian also has a productive suffix *-an* which is most likely an Iranian loan (Greppin 1973-74, 1975).

A Note on the Armenian Dative-Locative Endings *-um, -oy,* and *-oǰ*

WILLIAM R. SCHMALSTIEG
The Pennsylvania State University

The standard grammars of Indo-European trace the *o-stem nominal dative singular ending back to etymological *-ōi, chiefly on the basis of Gk. *(lúk)-ῳ* '(to the) wolf,' etc. Mažiulis, 1970, 106-126, has clearly shown the impossibility of deriving Lith. *(vil̃k-)ui* from such an Indo-European prototype. (Actually occurring in Lithuanian, in addition to *-ui*, are the *o-stem dative singular endings -u [western Dzukish and a part of the neighboring western High Lith. dialects] and *-uo* [reconstructed from Samogitian dialect endings -ou, -ū and -ō]). I would propose that there were originally several dative-locative singular endings in competition, viz. *-om (which had a sandhi alternant *-ō) and *-oy. (See Schmalstieg, 1980, 44-45, 69-70.) These consist, of course, of the stem vowel *-o- plus the markers *-y* and *-m* respectively. A contamination of *-ō and *-oy* has led to the Gk. ending -ῳ just as a contamination of Lith.-u (< *-uo < *-ō) and *-y (from other stems) have led to the Lith. ending -ui, or perhaps the ending is borrowed from the *u-stems (Mažiulis, 1970, 117).

The ending dative singular *-om is well attested in the northern Indo-European *o-stem demonstrative pronouns, cf. Lith. *tamui* (with *-ui* a back substitution from the nominal stems), Slavic *tom-u* (with -u likewise a back substitution from the nominal stems), Gothic *þamma* (with a doubling of the *-m-*). There is no need to rely exclusively on Indic *tas-mai* here. The substitution of the nom. sg. *tas* as the stem has parallels in Baltic. (One notes, e.g., the Lithuanian dialect definite adjective forms in which the nominative singular serves as a stem from which other cases are derived, cf., acc. sg. masc. *pirmàs-į, mėlynàs-į* derived from the indefinite nom. sg. *pìrmas* 'first,' *mė́lynas* 'blue' [Zinkevičius, 1957, 100].) The retention of the original dative ending *-om in the singular in Balto-Slavic has been facilitated by the addition of the nominal (Lith.) *-ui*, (Slavic) -u. The older *-om was also retained in plural nouns in which the stem *-o- and ending -m could be

retained because of the addition of a plural suffix, cf., e.g., Lith. *(vilk-)áms (< *-amus < *-om-us), Slavic (vlĭk-)omŭ (< *-om-us),* Gothic *(dag-)am (< *-om-* plus some plural formant). One can compare furthermore the Lith. locative singular pronominal *t-am-è* (< **-om-* plus nominal *-e*), Slavic *t-om-ĭ* (< **-om-*plus**-ĭ* of obscure origin).

The Armenian dative-locative ending *-um* can easily be derived from **-om*, and there is no need to presuppose the loss of an **-s-* in a protoform **-osm-* merely on the basis of the evidence of Indic, etc. Baltic, Slavic, and Germanic give good evidence for an etymological *-om(-). (See Godel, 1975, 35, 109).

One usually writes that Indo-European **ōi* was shortened to Oscan-Umbrian *-oi*, retained in Oscan as *Maiúí, Hereklúí*, monophthongized to Umbrian *-ē* (*Iuvie 'Iovio*, to Jupiter'). Since the authenticity of the Praenestine fibula is now to be disputed, this leaves us with the example *populoi Romanoi* in Latin. One encounters *Zextoi Titoi* in Faliscan (Leumann, 1977, 425-426). The Italic examples do not assure us of *ōi at all. In view of the evidence then it seems completely unnecessary to derive the Armenian ending *-oy* from *-ōi (Djahukyan, G. B., 1978, 165, 168). I would agree with Djahukyan, however, that the *-y* was retained in word-final position in this form of the ending.

In word-medial preconsonantal position IE **-y-* appears to be represented by Armenian *-y-*, cf. *taygr* 'brother-in-law, husband's brother,' Skt. *devár-*, Gk. *δαήρ* Lith. *díeveris;* Arm. *ayc* 'goat,' Gk. *αἴξ* gen. *αἰγός* (Meillet, 1936, 50, 44), *gayl* 'wolf,' Old Ir. *fail* 'id.' (Godel, 1975, 82). One can assume then that the retention of the final *-y* was conditioned originally by its occurrence before a following consonant in sentence sandhi (just as IE **y* was retained in word-medial position before a consonant).

Greppin, 1972, 76-78, writes that there appears to be a bifurcated development of IE initial **y* Armenian, viz., zero or *ǰ*, and he compares this with the bifurcated development in Greek, viz., either initial aspiration or *ζ*. Although suggesting that **Hy* gave Armenian *ǰ* and Gk. *ζ*, he nevertheless is careful to write that this has not yet been positively demonstrated. He gives the following etymologies: *ǰanam* 'I try' (< **yā-*), cf. Gk. *ζῆλος* 'eager rivalry, zeal'; Skt. *yātar-*'avenger'; Arm. *ǰov* 'sprout,' (< **yow-*), cf. Skt. *yávasa-* 'grass' and (apparently, however, with a different ablaut grade) Gk. *ζειαί* 'spelt'.

Although Greppin disputes the etymology, Arm. *ǰur* 'water' is commonly compared with Lith. *jū́ra* 'sea' (Solta, 1963, 100; Meillet, 1936, 52).

Following the consonants *n, r, l* (and before a vowel) IE **-y-* appears as Arm. *ǰ*, cf. *sterǰ* 'barren, sterile' (< **steryo-*), Gk. *steîra*, Lat. *steri-lis* 'id.'; Arm. *ołj* 'whole, sound' (< **olyo*), Old Ir. *uile* 'whole'; Arm. *anurǰ* 'dream,' (< **onōryo-*), Gk. *ὄναρ, ὄνειρος* 'id'. (Meillet, 1936, 52). In addition to these examples, Godel, 1975, 81, suggests some further cases, such as the 1st sg. pres. *mrmnǰem* 'I murmur' (beside Gk. *mormū́rō*), *płpǰam* 'I bubble' (< **pulpulǰem*; beside Lat. *bullio*) which presumably reflect **-ye-* presents. Cf. also *verǰ* 'end' which Godel, 81, derives from *uperyo-*.

In all of the examples in the preceding two paragraphs an IE **y* has developed to Arm. *ǰ* if followed by a non-front vowel. The only apparent exception is, of course, the development to *ǰ* in verbs of the **ye-* conjugation. Here, of course, one must consider the possibility of a generalization on the basis of the paradigmatic **yo-* forms (1st sg. and pl. and 3rd pl.).

I propose then that the IE dat.-loc **o*-stem ending **-oy* is represented also in Armenian by *-oǰ*. If, in sentence sandhi IE **-oy* was followed by a consonant, the Armenian development was to *-oy*. If, on the other hand, IE **-oy* was followed by a non-front vowel, then the development was to *-oǰ*. (If there was a following front vowel, the **-y* may have been lost completely as in *erek* 'three' [< **treyes*], see Meillet, 1936, 52. This sandhi variant **-o* is no longer attested at all.)

According to Tumanian, 1971, 197, locative forms in *-ǰ* are attested for such words as *tari* 'year,' *teɫi* 'place,' *kɫzi* 'island,' *aygi* 'garden, orchard,' etc. The ending is occasionally encountered in the genitive, dative and ablative cases, although, according to Tumanian, it is not characteristic for these. The forms in *-ǰ* are largely specialized for the expression of the locative case, e.g., dat. *teɫwoy* or *teɫwoǰ*, but loc. *i teɫwoǰ* 'in the place,' dat. *aygwoy* or *aygwoǰ*, but loc. *i aygwoǰ* 'in the orchard,' loc. *ikɫzwoǰ* 'on the island.' Thus the etymological sandhi variant *-oǰ* tended to be specialized in the locative case, whereas the etymological sandhi variant in *-oy* tended to be specialized in the dative and genitive, although there is some vacillation.

Thus there is a perfectly good explanation for the ending *-oǰ* which has nothing to do with the Greek adverbial *-οϑι* as in

οὐρανόθι (*πρό*) 'in the heavens' as Meillet, 1936, 73, proposed. In sum, the Armenian dat.-loc. endings *-oy* and *-oǰ* both reflect IE *l-loy and the Armenian dat.-loc. ending *-um* reflects IE *-om(-).

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DISCUSSION

This section is allotted to papers that have a controversial nature, and for which there is considerable room for discussion. Replies, suitable for publication, are solicited.

The Anatolian Substrata in Armenian — An Interim Report

JOHN A.C. GREPPIN
Cleveland State University

For over twenty years, since Schultheiss first introduced the concept of Anatolian substrata in Armenian (*KZ* 77.1961.219-234) to Western scholars, the theory has been regarded with a general skepticism. And though there has been a continuing effort to offer new correspondences and evaluate past material, there has been little change on the part of scholars and their acceptance of the theory. Indeed, the concept is a difficult one, and without doubt the prospect of Anatolian loan words in Armenian has presented problems that have never been well resolved.

The purpose of this brief report is to summarize the hypothesis as it stands in the early part of 1982, to provide a list of the vocabulary that should be considered part and parcel of those words which validly apply, and to acknowledge the doubts of those who, intelligently and reasonably, have not been able to accept the hypothesis.

In the last decade there has been a considerable number of papers on the theme, and some of them are exceptionally interesting. Of particular value is a paper by Nerses Mkrtchyan, of the Oriental Institute in Yerevan. He was able to list a large number of Armeno-Hittite parallels that showed mutual reduplication (*Drevnij vostok* 2, 1976.76-85; English summary 288-289). This paper was particularly convincing because the structure of the compared roots, Hittite-Armenian, was long, and the chances of phonetic and semantic coincidence was greatly reduced by this length. It was

Mkrtchyan's material, cojoined with other new publications, that strengthened the argument. In addition, the total inventory of correspondences has become better understood. Through this it is possible to present a list of nearly fifty correspondences, Armenian with Hittite, Luwian, Hurrian, Urartian and perhaps Akkadian. The items on this list seem particularly secure.

There remain from the more than one hundred that have been tendered, twenty-four Hittite-Armenian correspondences that are difficult to dislodge. They are listed at the end of this report. Some of these words clearly have their ultimate origin in Proto-Indo-European, yet because of their shape in Armenian, could not have been derived genetically by Armenian. Such words include Arm. *p*^{c}*etur* "feather" (IE **pet-*), Arm. *t*^{c}*aṙ* "perch, post for supporting vines" (IE **dor-u-*), and Arm. *gestras* "hunter" (cf. Av. *vāstar-* "shepherd"). Others from this inventory of words with an original Proto-Indo-European affiliation are those Armenian words which reflect a Hitt. *ḫ* with an Armenian *h*. This reflex stands in contradistinction to the more common loan correspondence of Arm. x from Hitt. *ḫ*. The arguments that this Hitt. *ḫ* and Arm. *h* reflect directly and independently an IE **H* are well known. The only point that weakens this genetic argument is the reality that three of these five correspondences have no further cognates outside Hittite and Armenian. Thus Arm. *han* "grandmother" and *haw* "grandfather" are potentially of ultimate Indo-European origin while Arm. *hatanem* "cut" and two others are doubtfully Indo-European since no further cognates exist in the Indo-European dialects.

There are two possible explanations. The first is that Hitt. *ḫ* is reflected by loan in Armenian only as x, and seeming Arm. *h* reflexes are in reality direct continuations of IE **H*. Alternatively, Hitt. *ḫ* can be reflected in Armenian, through loan, as both x and *h*. There is, as yet, no clear evidence that allows us to select one solution instead of another. However, the fact that there is a substantial body of correspondences between Hittite and Armenian and that their phonetic and semantic similarity is disarmingly close, cannot be set aside.

The proposed Luwian substrate in Armenian presents some grievous problems, and these problems are, in part, caused by the small number of Armeno-Luwian parallels. There are only nine. The question most often raised is whether these words are necessarily Luwian and not, instead, Hittite. Although they are indeed not extant in our surviving Hittite records, this does not exclude the possibility that the words could have existed there, but simply have not yet appeared in a Hittite text. This argument, however, receives no support when we confront such a parallel as Arm. *aparni* "future," HL *apparanti-* "id." Here the Hittite equivalent is *appašiwat-*. We would have to argue that a form similar to HL *apparanti* existed in Hittite alongside of *appašiwat-*, but was simply not used in the written language. This argument, though possible, is less compelling than the view that Arm. *aparni* is borrowed from a Luwian dialect.

There are a variety of reasons for wanting to insist on a Luwian element in Armenian. We have clear evidence that the Armenians were firmly established in the Cilician area by the early medieval period and it is this Cilician Armenian area which corresponds geographically to the area inhabited by various Luwian tribes in the first millenium BC. Correspondingly, we have no evidence that the Armenians ever inhabited, in significant number, the area around the Halys river that was the acknowledged center of Hittite civilization. It is the contention of numerous scholars who support the Anatolian substrata theory that even the Hittite loan words in Armenian are really Luwian words; however, our small Luwian vocabularly simply does not provide us evidence for their existance. It is for this reason that such a correspondence as Arm. *aparni*, Hitt. *apparanti* is important; so also would the correspondence Arm. *vaš*, HL *wasu-* "good" be important, since there the Hittite equivalent is *ašu-*, with no initial bilabial. Other significant correspondences are given at the end of this report.

The possibility of Hurrian and/or Urartian loans in Armenian is perhaps more easy to accept, for we know that the Armenians geographically replaced the Urartians as a political power in eastern Anatolia in the seventh century BC. What we are unable to answer is the question whether there were two separate infusions, Hurrian as well as Urartian, or whether these infusions were, in

reality, from only one source. Clearly the two languages, Urartian and Hurrian, are very close in the shape of their roots and phonetic divergences are known in only a limited number of instances. In most every case Hurrian words in Armenian could also and easily be, instead, Urartian, though our extant Urartian lexicon lacks the words. The same is true from the point of view that this vocabularly is solely Hurrian, and proof is lacking only because of our unfortunately brief Hurrian lexical inventory. The reason for preferring a Urartian source rather than a Hurrian source is straight-forward and obvious since the relationship of the Urartians to the pre-literate Armenian is historically established. Our reasons for preferring, instead, a Hurrian source are less obvious, but twofold. First, the Hurrians occupied an area that extended close to the easternmost parts of the Armenian-held areas of Cilicia, and the preference is thus geographically appropriate. Second, the Hurrian language can be cited as a good conduit for some of the vocabulary in Armenian that hitherto has been called Akkadian, but which, rather than directly from Akkadian, came to Armenian via Hurrian. A few etymologies have been suggested that would support a Hurrian rather than an Urartian connection, but the matter is far from clear.

Thus we have a variety of solutions for the transference of our Hittite and Luwian vocabulary, and for our Hurrian and Urartian words, into Armenian. The words could have come directly from Hittite or Luwian alone, and from Hurrian and Urartian alone. Alternatively, Luwian could have been the sole conduit for the Anatolian languages of Indo-European origin, and either Hurrian or Urartian could have provided all the words that are known to have come from both those languages. As matters now stand, there is neither evidence nor a procedure which clearly makes one alternative preferable to another. The solution is opaque.

Finally, there is the question of Akkadian loans. As can be seen from the two articles by Djahukian and Diakonoff at the beginning of this issue of the Journal, there is no way clearly to explain the source of these seemingly Akkadian-like forms. However, if one makes a determined effort to assign all the Akkadian vocabulary possible to North-West Semitic or North-West Iranian, there remain only a very few Akkadian roots that cannot be shown

to be from a source other than Akkadian. Though research on the Akkadian substratum in Armenian is only beginning, it seems that there is little strong evidence that the Akkadian words entered Armenian directly from Akkadian.

The following is the list of those words that seem difficult to dislodge from the Anatolian substrata theory. Each and every one of these words seems to have some weak part that can be used to show that perhaps the word should not be included. The list, item by item, is vulnerable. There are certain phonetic problems. How, for instance, can *p*^{c}*etur* "feather" be from Hitt. *pattar* "wing" when the original stem must have been **pet-*, yet the Armenian result shows both an aspirated and an unaspirated surd. There is no answer, though we can point to a diversity of phonetic realizations in our well established Iranian loan words in Armenian.

There are other problems. One might question why *han* and *haw*, the words for grandmother and grandfather, are borrowed, for terms of family relationships are usually as secure as the numbers. Yet it can be pointed out that in modern Western Armenian we find Turkish words used for family relationships: *dede, nene* "father-in-law, mother-in-law."

Onomatapoeia is also cited in the case of such a word as Arm. *gełgełank*^{c} "trill," But it is surprising, I feel, to find an exact parallel in the similarly reduplicated form *gelgelināi-* 'to make a musical sound'. Onomatapoeia is not a sufficient argument.

Finally, the argument is made that we might look more closely into the Iranian or Caucasian realm for sources for these words. In some instances this suggestion produces surprising results. Arm. *vaš* "good," a cornerstone in the Luwian hypothesis, also appears in Old Georgian and is even found in exactly the same places in both the Old Georgian and the Classical Armenian Bibles (*Job* 31.29; *Ps* 34.25). This, of course, tells us nothing about the direction of the loan.

But though each particular instance can rarely be supported absolutely, the now fairly large volume of words, four dozen or more, that are part of the loan word hypothesis makes the theory

difficult to dislodge as a whole. Though any single word is insecure, how can we explain, on the basis of pure chance, so many phonetically and semantically satisfying correspondences. It seems rather clear at this stage of research that we must admit that there appears to be some substance to the hypothesis, and that our future research must look for ways to reinforce the hypothesis, finding solutions to the problems, rather than debunking what seems to be an increasingly solid hypothesis.

Hittite and Luwian Vocabulary

A. of possible Indo-European origin

1. Arm. *pᶜetur* "feather," Hitt. *pattar* "wing"
2. Arm. *tᶜaṙ* "perch, post for supporting vines," Hitt. *taru-* "wood"
3. Arm. *gestras* "hunter," Hitt. *wēštara-* "shepherd"
4. Arm. *haw* "grandfather," Hitt. *ḫuḫḫa-* "id"
5. Arm. *han* "grandmother," Hitt. *ḫanna-* "id"
6. Arm. *hatanem* "cut," Hitt. *ḫattāi-* "pierce, stab"
7. Arm. *hskem* "watch, abstain from sleep," Hitt. *ḫušk-* "tarry, wait"
8. Arm. *hułk-ahar* "highwayman," Hitt. *ḫuluganni-* "cart" NPer. *rah-zan* "highwayman," lit. "cart-striker"
9. Arm. *zuṙnay* "horn," HL *śurnà* "id"
10. Arm. *ēš* "donkey," HL *áśuwa-* "horse"
11. Arm. *šun* "dog," HL *śuwana-* "id"

B. terms used in natural history

12. Arm. *taṙeɫn* "stork," Hitt. *tarla-* "type of bird"
13. Arm. *laxur* "celery, parsley," Hitt. GIŠ*laḫḫura-* "leafy plant"
14. Arm. *matᶜuz* "strawberry tree," HL *matúsà-* "arboreal term"
15. Arm. *torr* "vine, tendril," HL *tuwarsa-* "id"
16. Arm. *xalam* "skull of an animal," Hitt. *ḫalanta-* "head"

C. terms used in music and crafts

17. Arm. *brut* "potter," Hitt. *purut-* "clay"
18. Arm. *šuɫay* "skein of silk," Hitt. *šuel-* "thread"
19. Arm. *geɫgeɫankᶜ* "a trill," Hitt. *galgalinai-* "make a musical sound"
20. Arm. *tᶜaɫar* "basin," Hitt. *-talla-*, as in *akutalla-*, "id"
21. Arm. *xaɫ* "song, game," *Hitt. ḫalliyari-* "musician"

D. terms expressing violence

22. Arm. *k^c^rk^c^rem* "destroy," Hitt. *kurkurāi-* "maim, mutilate"
23. Arm. *xołxołem* "slaughter," Hitt. *ḫulḫuliya-* "fight, struggle"
24. Arm. *ǰaxǰaxem* "destroy," Hitt. *zaḫḫiya-* "attack"
25. Arm. *koškočem* "destroy," Hitt. *kuškuš-* "pound, bruise"
26. Arm. *top^c^em* "to beat," HL *tupi-* "id"
27. Arm. *šant* "lightning," Hitt. *Šanta-*, CL *Santa-*, HL *Sàntá-* "god (of violent storms?)"

E. aqueous terms

28. Arm. *ołoł* "innundation," Hitt. *alalima-* "river bed"
29. Arm. *šeṙ* "urine," Hitt. *šeḫur* "id"
30. Arm. *xoxem* "torrent," Hitt. *ḫunḫumazzi-* "flood"

F. other terms

31. Arm. *apaṙni* "future," HL *apparanti-* "id"
32. Arm. *vaš* "bravo," HL. *waśu-* "good"
33. Arm. *išxan* "ruler," Hitt. *išḫan* "id" (now deleted; Iranian)

Hurrian Vocabulary

34. Arm. *xnjor* "apple," Hurr. *ḫinzuri* "apple (tree)"
35. Arm. *tarma-ǰur* "well-water," Hurr. *tarmane* "spring of water," Ur. *tarmana-* "id"
36. Arm. *agar-ak* "field," Hurr. *awari* "id"
37. Arm. *astem* "to get married," Hurr. *ašte* "woman"
38. Arm. *maxr* "fir tree," Hurr. *māḫri* "arboreal term"
39. Arm. *kut* "a grain," Hurr. *kade* "id"

Urartian Vocabulary

40. Arm. *uɫt* "camel," Ur. *ulṭu* "id"
41. Arm. *cov* "sea," Ur. *ṣuə* "sea"
42. Arm. *oɫǰ* "alive," Ur. *ulgu* "life"
43. Arm. *sur* "sword," Ur. *šurə* "weapon"
44. Arm. *xarxarem* "to destroy," Ur. *ḫarḫaršu-* "id"
45. Arm. *cař* "tree," Ur. *ṣar* "orchard"

Akkadian Vocabulary

46. Arm. *salor* "plum," Akk. *šallūr* "id"
47. Arm. *tᶜonir* "stove," Akk. *tinūr* "id"
48. Arm. *knikᶜ* "seal," Akk. *kanīk* "id"

Book Notes

Rüdiger Schmitt. *Grammatik des Klassisch-Armenischen mit sprachvergleichenden Erläuterungen.* Innsbruck 1981, 8°, 253 Pp.

L'étude comparative et historique de l'arménien présente des difficultés toutes particulières. Meillet, en 1903, ne pensait pas les avoir complètement surmontées. Trente ans plus tard, la seconde édition, 'entièrement remaniée', de son ouvrage s'intitule encore modestement *Esquisse d'une grammaire comparée de l'arménien classique* (Vienne 1936); et plus récemment, dans l'avant-propos de son *Altarmenische Grammatik* (Heidelberg 1959), H. Jensen a estimé que, dans l'état actuel des connaissances, une grammaire comparée de l'arménien serait une entreprise prématurée. Ces considérations ont sans doute contribué à déterminer le plan de l'ouvrage dont il est rendu compte ici et dont le titre, d'ailleurs, indique bien le contenu.

On devait déjà à R. Schmitt des contributions à la linguistique arménienne qui témoignent d'un travail sérieux de documentation et de critique: "Die Erforschung des Klassisch-Armenischen seit Meillet" (1936) (*Kratylos* 17, 1972 [1974] p.1-68); "Von Bopp bis Hübschmann: das Armenische als indogermanische Sprache" (*KZ* 89, 1975 p.3-30); "Die Lautgeschichte und ihre Abhängigkeit von der Etymologie, am Beispiel des Armenischen" (*Akten der VI. Fachtagung der Idg. Gesellschaft*, Wiesbaden 1980 p.412-430). Sa grammaire de l'arménien classique n'est pas destinée spéciale-

ment aux comparatistes ou aux arménistes: elle veut être une initiation, "ein erster 'Lernbehelf' " (p.7); à des lecteurs non préparés, elle fournit à chaque étape l'information indispensable, en reprenant, quand il y a lieu, des explications ou des exemples déjà donnés; ainsi dans les chapitres sur la phonétique historique, où le commentaire comparatif est particulièrement détaillé (p.48-79). L'alphabet arménien, dûment présenté au début du livre (p.25-26), n'est pas utilisé dans la suite: R. Schmitt y applique le système de translitération qu'il a lui-même mis au point (*KZ* 86, 1972 p.296-306). Bonne affaire pour le lecteur, qui risque toutefois d'être dérouté par l'usage d'une triple transcription: phonologique, phonétique et 'graphématique' (p.11) et peut-être gêné (je le suis moi-même) par la notation <ow> du phonème /u/.

L'avant-propos (p.7-8) est suivi d'une liste des abréviations et des signes typographiques, puis d'une bibliographie. Dans la première partie (*Einleitung*, p.17-24), l'auteur résume ce qu'on sait de la langue et du peuple arméniens: origines indo-européennes, contacts avec les anciennes langues du Moyen Orient, de l'Iran en particulier; tradition des textes (et il insiste ici sur la distance qui sépare de l' "âge d'or" de la littérature classique les plus anciens manuscrits conservés); enfin, position de l'arménien au sein de la famille indo-européenne et traits caractéristiques de son vocabulaire et de sa grammaire. Dans la deuxième partie, l'ordre des matières est conforme à l'usage: phonologie; formation des mots; flexion (nominale, pronominale, verbale); remarques sur la syntaxe et le lexique. On remarquera la division nette de la section 'phonologie' en une partie descriptive (p.25-47) et une partie historique (p.48-79), alors que dans les chapitres suivants le commentaire historico-comparatif suit pas à pas la description. La troisième partie (*Textproben mit Erläuterungen*, p.165-219) contient trois textes: deux sont tirés des Evangiles et accompagnés de l'original grec; le troisième est le morceau poétique sur la naissance de Vahagn transmis par l'historien Moïse de Khoren. A ces textes R. Schmitt a joint un commentaire perpétuel, ce qui lui permet d'aborder un certain nombre de questions de détail non touchées dans les dix chapitres de la grammaire. La dernière partie (*Indices*, p.221-253) apporte, comme on s'y attend, un glossaire de tous les mots arméniens cités dans le volume, mais aussi, d'abord, un *Rückläufiger Index der Wortausgänge*, dont je n'ai pas trouvé l'équivalent dans les études sur l'arménien qui me sont connues. Un index des monèmes flexionnels et dérivationnels serait, à mon avis, plus utile.

Cette analyse sommaire fait entrevoir ce par quoi le livre de R. Schmitt se distingue des ouvrages antérieurs et le soin qu'il a mis à réaliser son programme, à savoir (le titre le dit et l'Avant-propos le précise), éclairer la description de la langue par l'explication historique et comparative partout où l'évolution antérieure peut être retracée à partir de l'indo-européen "classique," celui de Brugmann ou de Walde-Pokorny. On ne cherchera donc pas, dans ce livre, des vues nouvelles sur les changements phonétiques et morphologiques: pour chaque problème particulier, l'auteur se réfère aux solutions proposées par des savants comme Hübschmann, Meillet, Bolognesi, etc. et renvoie aux publications originales signalées dans la bibliographie (p.12-15).

Plutôt que de présenter ici des remarques de détail dont l'énumération aurait peu d'intérêt, je me borne à relever dans la deuxième partie (*Grammatik* p.25-164) quelques points sur lesquels l'auteur semble hésiter ou même, à l'occasion, se contredire. Dans un chapitre préliminaire sur l'écriture et l'interprétation des graphies, il constate qu'il n'est pas possible de déterminer exactement la façon dont l'arménien était prononcé au Vme siècle (p.28, para. 5). Or, plus loin, il adopte la transcription par [-am, -o] de <-ay, oy> à la fin des polysyllabes, tout en remarquant "doch ist dies wohl erst nachklassisch" (p.32). Je ne vois pas l'avantage du procédé. Dans le même chapitre (p.31 Note F), il souligne le fait que *v* et *w* ne sont pas des phonèmes différents, mais des allographes en distribution complémentaire. Néanmoins, dans le chapitre suivant *(Phonemsystem: Allgemeines)*, *v* est désigné comme une fricative *(Reibelaut)* labiodentale — ou peut-être bilabiale (p.36 Note A); *w*, en ravanche, comme une semi-voyelle *(Halbvokal:* u̯). Il sera question plus loin des alternances régulières entre le vocalisme des syllabes finales et des syllabes non finales. Sur la flexion des noms en *-iw (t'iw, t'uoy; hoviw, hovui,* etc.), R. Schmitt note: "der Halbvokal [u̯] wird heir" (c'est-à-dire dans les formes fléchies) 'graphisch durch <ow> bezeichnet' (p.41 Note C), et en conséquence transcrit *t'uoy* par [t'əu̯o] (p. 39) et *hovui* sans doute par [hovu̯i]. Pourquoi alors la semivoyelle n'est-elle pas notée *w* comme au G-D d'un polysyllabe en *-i, gini* par exemple (G-D *ginwoy* [ginu̯o], p.43 Note A)? Je ne cherche pas chicane à R. Schmitt: l'opposition entre *t'uoy* et *ginwoy* (sans parler de *jioy*) est une énigme qui attend encore son Oedipe. Mais la transcription phonétique n'apporte pas toujours la lumière qu'on pouvait espérer.

Dans la déclinaison de *k'oyr*, qui reflète si fidèlement l'alternance **swesor-/ swesr-*, la forme de l'instrumental *k'erb* fait problème: faut-il interpréter *-er-* comme le produit d'une contraction (-er-< **-e(h)ar-* < **esṛ-*) ou d'une harmonisation (*k'erb* pour *k'arb sous l'influence du G-D *k'eṙ*)? La même question se pose pour *jerb* (dans *jerbakal*) à côté de *jeṙn*, *jeṙk'*. La première explication est donnée sans réserve p.44 et 73, mais remise en question p.78 Note AP; et là c'est la seconde qui a la préférence.

L'évolution de **t* intervocalique est claire: dans cette position, **t* est devenu *y* (*hayr*, p.59), qui plus tard s'est amui (*harb*, *hark'*, p. 100). On est heureux de voir R. Schmitt écarter l'idée d'une évolution **pətṛbhi* > **hawarb* > *harb* (*Kratylos* 17 p.14). Mais pourquoi faut-il que, dans un tout autre contexte (p.150), l'explication donnée jadis par Meillet, confirmée depuis par C. Watkins, de la désinence médiopassive *-w* (*beraw*, *eɫew*) soit suivie de cette réserve: "jedoch wird dies neuerdings (zugunsten einer Rückführund auf idg. *-to*) in Zweifel gezogen?" Espérons qu'à 90 pages de distance la contradiction passera inaperçue.

Le vieux problème que pose l'origine de l'élément *-k'* dans la flexion nominale et verbale est discuté p.111-112. Pour R. Schmitt, l'hypothèse la plus acceptable est celle d'une particule ajoutée après coup; il rejette en tout cas, et de façon catégorique, le rattachement de *-k'* à des désinences en **-s*. Chose curieuse, il se montre beaucoup plus complaisant è l'égard d'une suggestion de Pisani, qui a voulu reconnaître, dans la finale *-c'* des G-D-Abl. pluriels, un avatar de **-s-*: cette proposition est, à ses yeux, "beachtenswert" (p.114).

La terminologie n'appelle pas d'observations particulières, sauf sur un point: dans le système du verbe, correctement décrit par ailleurs, R. Schmitt distingue, comme déjà Meillet (*Altarmenisches Elementarbuch*, Heidelberg 1913 p.93 et 96 [réimpression Caravan Books 1981]), un impératif présent et un impératif aoriste (p.133, 143, 151-152). L'usage et la répartition des formes ainsi dénommées invite à opposer plutôt prohibitif et impératif.

Je n'ai relevé que trois erreurs manifestes: p.31 (*hayrn* "sein Vater," pour "der Vater"); 32 (*ekeac'* "ich lebte" pour "er, sie Lebte") 87 § 6 (*kazkazem* "ich laufe hin und her" pour *vazvazem*).

Robert Godel
Geneva

Aspect and Georgian Medial Verbs, by Dee Ann Holisky, Delmar, NY: Caravan Books, 1981, x + 212 pp. $30.00

Medial verbs in Georgian constitute a large class of mostly intransitive expressive verbs. As intransitives that take an 'ergative' case subject, they have been an embarassment to the popular ergative analysis of Georgian, and consequently became the source of internal contradiction and inconsistency in nearly every account of Georgian grammar.

Holisky's important contribution to Georgian studies has been to bring order out of chaos; she shows that we have here a class of verbs that is morphologically, syntactically, and semantically regular. She achieved these results by approaching her subject from a direction not previously seen. Holisky shows that by providing an objective — in this instance, morphological — definition for the class, a number of interesting regularities fall out. The class she defines encompasses most of the set previously referred to misleadingly as "middle verbs," though she eliminates some truly irregular verbs.

The major focus of the book is the semantic characterization of medial verbs. Holisky establishes that as a class, medials are those agentive verbs which express atelic activity. By "agentive" she means roughly that the activity expressed can be controlled by the subject; for example, verbs meaning "work," "play," "run," and "talk" fall into this category, in opposition to "be," "fall," "dawn," "become old," etc. The notion "atelic" contrasts both with stative and with telic activities, the latter being, loosely, ones that are inherently perfectivizable. Atelic medial verbs such as *celkobs* "behaves naughtily," *burtaobs* "plays ball," *ṭiris* "cries" and *šromobs* "works" are inherently non-perfectivizable, in contrast to *saxls*

ašenebs "builds a house," *çerils çers* "writes a letter," *supras šlis* "spreads a table(cloth)," etc., which are inherently capable of being completed. Unlike previous characterizations of medial verbs, Holisky's is not based on arbitrary claims, but on precise diagnostics for the semantic features she discusses.

Among the virtues of the work is the fact that it provides an exhaustive treatment of medial verbs. Using a list derived from the comprehensive Academy Dictionary, Holisky presented every verb to more than one informant. The importance of this is that it enables the non-specialist to evaluate the degree of regularity evinced by the class and the extent to which competing analyses of Georgian grammar correctly characterize the class of medial verbs.

Recent linguistic literature shows growing interest in aspect, and there is material here which will attract the general linguist working on that topic. It is unfortunate that the Introduction and early parts of the book do not inform the general reader of this and, in fact, make it rather difficult for him to discover the relevance of Georgian to the study of aspect. However, if he perseveres, the reader will be rewarded by Holisky's analyses of the semantics of this verb class.

Alice C. Harris
Vanderbilt University

Kartuli enis ganmarṭebiti leḳsikoni, vol. I-VIII, ed. by A. Chikobava, Tbilisi: Aḳademiis Gamomcemloba, 1950-64.

James Etmekjian (ed.), *An Anthology of Western Armenian Literature*. Delmar, New York, Caravan Books, 1980, XX, 477 pp., $20.00.

With the book under review we have in hand the first anthology of Modern West Armenian literature which follows the principles of such collections as used in the teaching of, let us say, Germanic or Romance literatures. By short commentaries to single passages (as far as needed) and especially by a comprehensive Armenian-English glossary (pp. 357-475) it makes Armenian literature accessible to non-Armenian people in a very convenient manner. The texts, poetic as well as prosaic, selected for this volume go back to the Armenian Renaissance in the second half of the last century and are grouped according to their themes under the headings "Romanticism" (pp. 1-50), "Realism" (pp. 51-119), "Satire" (pp. 121-144), "The Post-Realist or 'Artist' Generation" (pp. 145-247), and "Literature of the Diaspora" (pp. 249-356). Within these sections the texts are arranged by authors in chronological order and introduced by biographical sketches of the authors and general remarks as to the history of Armenian literature. So one finds, among many others, selections of Petros Dowrean (1851-72), Arp^{c}iar Arp^{c}iarean (1852-1908), Grigor Zôhrap (1861-1915), Lewon Bašalean (1868-1943), Erowand Ôtean (1869-1926), all being natives of Constantinople as also Aršak Č^{c}ôpanean (1872-1954) and Matt^{c}êos Zarifean (1894-1924). By the way it may be noted that the

last-cited poet's Christian name is a good example for proving the usual mode of transliterating Modern West Armenian to be really inappropriate: "Madt^{c}evos". Since anthologies of such kind always and everywhere meet with disagreement in one point or another, reviewers ought not to stress such comments too much. But expressly I agree to the omission of texts written in classical grabar or strongly influenced by local dialects. We may sum up that in lack of appropriate reading-books this Armenian anthology, although primarily conceived by and for a historian of literature, will render good services for the linguist teaching Modern Armenian, too.

R. Sch.

Classical Armenian Text Reprint Series. [Unnumbered volumes:] Agathangelos. *Patmowt^{c}iwn Hayots^{c}* (History of the Armenians). A facsimile reproduction of the 1909 Tiflis edition with an introduction by Robert W. Thomson. Delmar, New York, Caravan Books, 1980, xvii, 80 [Arm.], 474, 30 [Arm.] pp., $55.00. — Hovhannēs Draskhanakertets^{c}i. *Patmut^{c}iwn Hayots^{c}* (History of Armenia). A facsimile reproduction of the 1912 Tiflis edition with an introduction by Krikor Maksoudian. *ibidem*, 1980, xxviii, [VIII], 19 [Arm.], 427 pp., $49.00.

It has been a good idea of John Greppin to make accessible anew by reprints the standard editions of the most important Classical Armenian texts, and it is especially laudable, that those editions have been chosen, upon which are based the textual concordances published by the Armenian Academy of Sciences in Yerevan within the *Haykakan hamabarbar̄* under the general guidance of the late Ararat Sahaki Łaribyan. The first two volumes of this series are the books on the *History of the Armenians* by Agathangelos and the katholikos John (Yovhannês) of Drasxanakert (10th c.), which in those days had been edited by G. Têr-Mkrtč^{c}ean/ St. Kanayeanc^{c} (in a critical edition under the Armenian title Agat^{c}angełay Patmowt^{c}iwn Hayoc^{c}) and Mkrtič^{c} Êmin respectively (Tiflis 1912; but cfr. below). The reprints of the Tiflis editions of 1909 and 1912, being unchanged from the title-pages to the end and so containing all the prefaces, indexes and similar and, above

all, the invaluable lists of names, too, are accompanied now only by new introductions by Robert W. Thomson and Krikor Maksoudian respectively. These introductory papers are dealing with the author, with significance and content of the text in question, with the history of its 9origin and transmission (that being a very complex one in the case of Agathangelos) and are giving bibliographical references to editions, translations and studies being on hand. At last it must be mentioned that the title-pages of both the reprint and the reprinted edition of John's "History" are misleading inasmuch as they mention only the Tiflis edition of 1912 (as volume 5 of the widely known ***Łowkasean Matenadaran:*** *Yovhannow Katcołikosi Drasxanakertec^{c}woy Patmowt^{c}iwn Hayoc^{c})*, conceal, however, that this in its turn was only a new impression of the much older edition prepared by Êmin in 1853. Since that aged edition, which indeed I never had in hands, is based only upon one single manuscript (Matenadaran No. 6537), at least the scholar interested in the exact wording is left to the critical edition based upon five Matenadaran manuscripts and published in 1965 by the Georgian Academy of Sciences. R. Sch.

Armenian Dialect Atlas. Hovhannes D. Muradyan, chief editor.

The Linguistics Institute of the Armenian Academy of Sciences is beginning preparation of a dialect atlas of the Armenian language which will show the status of the Armenian dialects up to 1915, the date of the onset of the diaspora. Preliminary work is well underway. In 1977 an extensive "Program for the Collection of Dialect Material," a questionaire, was published and included 778 questions. Of these, 120 referred to morphology and syntax; 100 to phonetics, and 560 were to specific lexical uses. At the end of the phonetic questions there was a list of about fifty commonly used words which have undergone great changes. In addition, special attention was paid to historical sound changes as well as combinatory shifts.

It should be stressed that this dialect atlas in no way reflects the current distribution of the Armenian dialects, and the relative inaccesibility of the early regions plays no role. The material is culled from speakers now living in Soviet Armenia.

Preliminarily, it would seem that the traditional classification of the material, into two, three or four branches adds little to our understanding of the interchange of dialects. Further, some of the points made in Gharibian's phonetic classification are refined while other points are rejected. Much has been established on the so-called aspirated-voiced plosives. Certain dialects, such as those of Erznka, Kharberd and others, once thought to show evidence for this aspiration, have proved not to have this aspiration, whereas in other dialects the aspiration is easily detected.

The first volume is due about 1985.

A. Kh.

Hayoc^{c} lezvi hamematakan k^{c}erakanut^{c}yan harc^{c}er (Questions on the Comparative grammar of the Armenian Language). Collected authors. Izd. Ak. N. Arm. SSR, 1979. pp. 380; 3r. 30 k.

This attractive collection is composed of six articles, some by established names in Soviet Armenian linguistics, others by authors who are just becoming known. On the whole the pieces show a good level of competence. Appealingly, there is a strong interest in bibliography, and all articles trace investigations in the subject area from the earliest studies published; the reader thus has access to a thorough forschungsgeschichte of decided value.

The initial chapter by G. B. Djahukian (pp. 5-22) is essentially a history of Armenian linguistics beginning from the nineteenth century. Special reference is made to the Anatolian intrusions with an emphasis on the ideas of G. Ghapantsian from their first appearance in 1931.

Two articles compare Armenian with separate Indo-European dialect groups. M. A. Aghabekian deals with Armeno-Italic lexical correspondences (pp. 23-127) while E. G. Khachaturova examines Armeno-Indic relationships (pp. 325-375). Aghabekian, after a general introduction and some areal remarks, deals specifically with Latin, Oscan, Umbrian, and Faliscan, focusing primarily on lexical rapport with Armenian. In addition to using standard Italic roots, he also investigates the role of Italic suffixes. Madam Khachaturova, who has written before on Armeno-Indic relationships (*PBH* 1973.191-199), expands on her original theme in her treatment of phonetic correspondences but does not measurably add to her earlier publication when discussing lexical relationships.

A most interesting paper is provided by N. M. Simonian whose discussion of Indo-European archaisms in the Armenian dialects (pp. 188-248) breaks some new ground. Ms. Simonian focuses her discussion predominately on irregular initial aspiration as found in the Armenian dialects. She feels that they can often be taken as a more faithful representation of the original Indo-European state than that which we get from the orthography of *grabar*. This theme is most important, and somehow we must find a way to merge the standard language represented in the fifth-century writings with the frequently unified deviations we find so abundantly in the modern dialects.

Two final articles round out the collection: H. V. Sukiasian writes on the determinative used in composition (pp. 249-324), and M. K. Hanneyan does an areal study (pp. 128-187).

J. A. C. G.

Mon premier livre d'arménien. Martiros Minassian. Publication de la Fondation des Frères Ghoukassiantz. Geneva 1981. Large format. Pp. 122.

Prof. Minassian, ever fecund, has presented the Armenian public with yet another practical handbook. This one is by no means intended for a scholarly audience, but rather is aimed at the French speaking child who, for whatever reasons, is compelled to learn modern Western Armenian.

The Armenian letters are introduced slowly, and a transliteration of the Armenian accompanies the text in ever decreasing amounts as the student slowly grows accustomed to the rigors of the new alphabet. By the end of the book the student will have learned the present and future tenses, and three shades of the past tense, as well as all the cases. The syntax remains quite elementary, rarely going beyond the level of such sentences as *Im hayrs tertsak* ē or *Sirenk*[c] *mer lezun ew mer egeghetsin*. There are also sufficient sentences to be translated into Armenian: "Les Arméniens n'ont pas obéi aux Perses en 451." And of course "Respondex aux questions": *Ays dari or tasarann es?* etc.

The book is curiously illustrated in a style that certainly is not part of the mainstream of illustrated primers, but none the less is pleasing and certainly evocative of the Armenian spirit. A vocabulary French-Armenian and Armenian-French is provided at the end.

All in all the book seems sensitive to the needs of a young child, and would tend to invite interest. The Armenian chair at the University of Geneva is again to be congratulated for its industry.

J. A. C. G.

Three Recent Texts

Abraham Terian, *Philonis Alexandri de animalibus*, Studies in Hellenistic Judaism, Number I, Scholars Press, Chico, California 1981.

Abraham Terian's monograph is a refined version of his doctoral dissertation done at the University of Basel, a study of one of Philo's lesser known works, *De animalibus*. This work, a product of the Hellenizing school (A.D. 570-730) exists essentially only in the Armenian version, with only a few-trivial scraps of the original Greek extant. Terian considers it essentially an anthropological text, a comparison between the irrational animal (ἄλογον ζῷον) and the rational animal (λογικὸν ζῷον) in accordance with Judaic views. The book is divided into an introductory section followed by a translation and an elaborate commentary, a section that provides Terian's principal creative contribution. An appendix contains a complete reprinting of Aucher's 1822 text and Latin translation, and concludes with the listing of the pitifully few Greek scraps, a comparison between the *De animalibus* and Plato's *Phaedrus*, and a solid Philonic bibliography.

Claude E. Cox, *The Armenian Translation of Deuteronomy*, University of Pennsylvania Armenian Texts and Studies 2, Scholars Press, Chico, California 1981.

Professor Cox has established a new text of the Armenian version of Deuteronomy, no small job when considering the abundant problems faced in this complicated work; the well-typed text (pp. 73-217) is accompanied by a lengthy apparatus. Cox also devotes considerable energy to detailing the relationship of the Armenian text with the Greek text (pp. 243-299). He concludes (p. 298) that "basically Arm[enian] reflects a Byzantine type of text that has been strongly influenced by the Hexaplaric recension." On the relation of the Armenian text with the Syriac Peshitta he remains uncommitted. Though acknowledging the possibility that the earliest version of the Armenian OT could have been based on a Syriac text, his views in the present instance are that Syriac had little influence on this version (p. 326): "That the translator of Arm[enian] may have known [the Peshitta] is quite possible. However, the small number of minor agreements with [the Peshitta] do not prove that there is any sort of textual relationship."

Michael E. Stone, *Signs of the Judgement, Onomastica Sacra, and The Generations from Adam*, University of Pennsylvania Armenian Texts and Studies 3, Scholars Press, Chico, California 1981.

This is Professor Stone's second contribution to Armenian textual studies (the first was his *The Armenian Version of IV Ezra*, University of Pennsylvania Armenian Texts and Studies 1, 1979). In this current book Professor Stone deals with four quite brief and entirely recondite texts. The first, *Signs of the Judgement* (pp. 1-57), is an apocalyptic text of some one hundred short lines, established here by Stone, and given along with the Hebrew and Latin versions. The *Onamastica Sacra* (pp. 61-217) is a series of proper names, identified by brief glosses. *The Peoples of the Sons of Noah* (pp. 221, 224-227) is a text based on *Genesis* 10.2 and *Chronicles* 1.5-21; it deals with the enumeration of the nations descending from the three sons of Noah. This text has many similarities to the fourth text, *The Generations from Adam* (pp. 222-223, 228-245), which is a chronological list of rulers, starting from Adam and extending to the seventh century A.D.

The book closes with an index to the *Onomastica*.

J. A. C. G.

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